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A questionnaire of 50 items covering five categories of statements designed to determine their perceptions of office work was administered to 498 advantaged and 477 disadvantaged rural high school girls in six states, and to 326 city office employees throughout the United States who had attended a rural high school no more than three years prior to the study. Comparisons were made between advantaged and disadvantaged students, advantaged students and office employees, and disadvantaged students and office employees. Additional comparisons were made within and between cultural groups on the basis of interest in office work, typewriting experience, grade averages, and grade level. Highly significant differences on almost all items were noted when the students and office employees were compared; however, the advantaged students did not differ significantly in any of the categories with the disadvantaged students. Few significant differences were detected between cultural groups on the basis of interest, typewriting experience, grade averages and grade level; neither the advantaged nor the disadvantaged student appeared to understand office work. Recommendations were that resource people be brought to the rural classroom that teachers return to the office for work experience, that field trips be made, and that a library of office occupational information be available to students and teachers. (MM)

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ADVANTAGED AND DISADVANTAGED RURAL HIGH SCHOOL GIRLS' PERCEPTIONS OF OFFICE WORK

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ADVANTAGED AND DISADVANTAGED RURAL HIGH SCHOOL GIRLS' PERCEPTIONS OF OFFICE WORK

Albert C. Masterson

Project Investigator

The writer acknowledges the partial support received from The Center for Vocational and Technical Education of The Ohio State University in the conduct of this research project.

ABSTRACT OF THESIS

ADVANTAGED AND DISADVANTAGED RURAL HIGH SCHOOL GIRLS' PERCEPTIONS OF OFFICE WORK

The purpose of this study was to determine the rural high school girls' perceptions of office work. The study was funded by The Center for Research and Leadership in Vocational Education at The Ohio State University, Columbus, Ohio.

A questionnaire composed of fifty items covering five categories of statements was designed and administered to high school girls in rural communities of 2500 population or less and to women office workers who had attended a rural high school in a community of 2500 or less no more than three years prior to the gathering of the data. The office workers were living in cities or large towns and were working in offices at the time they participated in the study. Four hundred and ninety-eight advantaged high school girls and four hundred and seventy-seven disadvantaged high school girls completed the questionnaires. Ninety-eight percent of the teachers asked to administer questionnaires to high school students cooperated with the writer. Three hundred and twenty-six office employees, who were considered the experts, participated. In additon to including advantaged and disadvantaged rural high school girls in the study, an effort was made to involve Spanish-American, Indian, Negro and Anglo rural students. Only one Negro student was found in the schools participating in the study; consequently, only advantaged and disadvantaged Spanish-American, Indian and Anglo students were included. All of the student data was gathered in Arizona, Colorado, Idaho, New Mexico, Nevada, and Utah. The office employees were living in all parts of the United States, but they had all attended a rural high school in a community of 2500 population or less.

Comparisons were made between advantaged and disadvantaged students, advantaged students and office employees, and disadvantaged students and office employees. In addition, comparisons were made within and between the cultural groups on the basis of interest in office work, typewriting experience, grade averages and grade level. Highly significant differences on almost all items were noted when the advantaged students and office employees and the disadvantaged students and the office employees were compared, and comparisons by categories with these same groups revealed highly significant differences in their responses also. It was interesting to note that the advantaged students did not differ significantly in any of the categories with the disadvantaged students.

In other comparisons there were significant differences noted when each item was analyzed; however, few significant differences were detected when categories were considered. The data of the study points out that the rural high school girls do not have the same perceptions of office work as do the office workers. It further points out that there is little difference in the perception of office work when the advantaged student is compared with the disadvantaged student; neither appears to understand office work.

It was recommended that resource people be brought to the rural classroom, that teachers return to the office for recent work experience and that field trips be made a part of the office education program in the rural high school. It was also recommended that a library of office occupational information be available to students and to teachers.

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June, 1968

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Chapter I

THE PROBLEM

Introduction

This study was funded by The Center for Research and Leadership Development in Vocational and Technical Education at The Ohio State University. Dr. Harry Huffman, Specialist in Business and Office Education at The Center conceived the need to explore the perceptions of rural high school girls toward living in a city and working in an office in a city.

Dr. Huffman called a committee of business educators and research specialists together at The Center to discuss the need and feasibility of conducting this research in a prescribed rural sector of the United States. After two days of discussing the problem and establishing the guidelines, the final approval for the research was granted by Dr. Robert Taylor, Director of The Center.

The Rationale

Over the past fifty years there has been a significant migration of rural people to the urban areas in the United States. The primary reason for the migration has been the ability of the farmer to cultivate more land and raise more livestock with less manpower through the use of the latest agricultural equipment and technology.

Even with this trend continuing today, there are many young people being trained in rural high schools for office work. Opportunities for them in office employment in rural communities is extremely limited. Consequently, those who desire to enter the occupation for which they are trained must move to locations where jobs exist. Primarily, this means moving to the larger towns and cities. The magnitude of office training at the secondary level was recognized by the panel of consultants on vocational education when they reported to President Kennedy in 1962: (26)

> Training for office occupations has not been included under the vocational education programs aided by Federal funds. Programs in this field, however, are offered in probably over 80 percent of the high schools. Employment opportunities in this field are extensive and increasing.
>
> Little planning has been done to meet the needs of youth who will move from their rural communities to find jobs in urban areas. The Federal Government now helps the States to train for employment about 750,000 school youth and about 900,000 school girls preparing to become homemakers. The Federal Government now pays about twenty percent of the direct operating cost of this vocational program. . . . The total high school enrollment in training for office occupations cannot be determined with accuracy from existing data, but it is probably twice as large as the enrollment of all the other high school programs combined which train for employment.

Is it not conceivable that whether a youngster is advantaged or disadvantaged she might have difficulty perceiving that she can earn a salary commensurate with that of the bread winner of her family by working in an office? Could it not be beyond the realm of a young girl's perception to think that she could support herself in a city or even have an opportunity to work in a modern office in a city with the skills and knowledge acquired in a rural high school located several hundred miles from a metropolitan center? If the attitude that they could never fit into a modern office prevails among the rural high school business and office education students, curriculum development designed to alleviate misunderstandings could well be a need in our rural schools.

Dr. Alben Garbin, Occupational Sociologist, The Center, stated at the meeting called by Dr. Huffman to explore this study that rural high school students living in homes classified as low income have a greater desire for the immediate needs of our society. They do not tend to be futuristic, nor do they tend to delay rewards of their training. Their immediate needs take precedence over future rewards. Middleclass families, on the other hand, set goals that require a discipline to attain. They tend to be more futuristic because they can delay rewards. They possess the immediate needs for maintaining an average family. Because many of the families in the rural areas are classified in the low-income group, business and office education teachers have a more difficult time in their efforts to direct the student toward future goals.

Would it not be probable that with riots, strikes, demonstrations, and discrimination taking a large share of our news coverage rural students could have a tendency to feel frustrated and have reservations about living in a city? Couldn't they be hesitant to leave the security of the rural home and the rural community? Do rural high school girls understand the complexities of living and working in cities? Do they know how to apply for a job, what is expected of a beginning worker, and how to adjust to a life beyond the rural sector? It could be possible that there is a need in the rural curriculum for courses designed to assist the students in their quest to make their place in the urban society and in the urban office.

Those who have heard the magic word "automation" may have developed reservations as to whether there will be a need for the kind of work for which they train. This word has confused both students and teachers because of the ignorance of many writers who create unjustified fears and misconceptions regarding the place of automated equipment in the business community.

To cope with some of the occupational and personal problems that confront the rural high school student, the investigator must identify their perceptions of office work and city life. An effort was made in this study to identify perceptions of office work and city life held by rural high school girls.

The Problem

The problem for this study was to identify the perceptions held by both advantaged and disadvantaged rural high school students toward living in a city and working in an office in a city. The problem involved securing and categorizing responses of rural high school girls to a questionnaire. The statements on the questionnaire were categorized into the following groups: job prerequisites, rewards of the job, personal relationships, job expectations, and discrimination. The problem further involved identification of office workers now living in cities who were students in rural high schools within the last three years. These office workers were administered the same questionnaire as the rural high school students. The responses of the office workers were considered the correct responses to each item on the questionnaire because they were employed in offices in cities and were living in cities. Consequently, the office workers were the experts. By comparing the responses of the students with the responses of the experts, conclusions can be drawn for curriculum needs in the rural high schools.

Need for the Study

A search of the literature has revealed that no study has been made to determine the extent of knowledge that rural high school girls have of the actual requirements of office work and of living in cities. Much has been written concerning the standards that teachers "think" should be observed in the office. Little has been done in the way of research to substantiate realistic requirements for employment in offices in cities. Lovely (19:181) has prescribed some idealistic attributes that office workers should possess but has indicated no research to verify that the standards she prescribes for office workers are, in fact, the standards required of office workers in today's office environment.

Dye (9) conducted a similar study in our larger cities. His efforts at the time of this writing were not complete. Dye's study, as does this one, deals with perceptions of minority groups, or people originating from a different culture than the majority group.

Teachers often voice a concern about the quality of work their students perform. Little has been done to determine what the student really knows about the quality of work expected of him in an office other than that which the teacher is able to disseminate. If the teacher has never worked in an office, she is at a distinct disadvantage in relating requirements and standards for office work. An unrealistic approach to training for job entry could result from the teacher's lack of office experience.

Because there are business and office education programs of varying levels of proficiency taught in most rural high schools in the area of the United States covered in this study, there was a need to discover the perceptions that the students enrolled in these programs have concerning city life and office work in urban environments. Adjustments from rural to urban centers must be made regardless of the quality of the programs from which the students come.

Purpose of the Study

Much research has been done in the area of curriculum in business and office education. Whether a student learns typewriting or shorthand in a city or in a rural high school, the procedures for teaching the courses will vary only with the individual methods of the teachers concerned. The investigator has discovered no research to indicate that students in cities have a better opportunity for learning office skills than students in rural high schools, or vice versa. Neither has any research been discovered to determine the perceptions of rural high school girls toward working in offices in cities and living in cities. Is it possible that we are training our students in the skills and failing to give them an adequate education on how to work and live where the skills are needed?

As previously stated, the purpose of this study is to determine the perceptions of advantaged and disadvantaged rural high school students toward living in a city and working in an office in a city.

Specifically, students were asked to respond to statements categorized into five groups: job prerequisites, rewards of the job, personal relationships, job expectations, and discrimination.

Hypotheses Tested

1. There is no difference in the perceptions of office work between advantaged rural high school girls and office employees.

2. There is no difference in the perceptions of office work between disadvantaged rural high school girls and office employees.

3. There is no difference in the perceptions of office work between advantaged and disadvantaged rural high school girls.

4. There is no difference in the perceptions of office work held by advantaged rural high school girls in relation to their interest in office work.

5. There is no difference in the perceptions of office work held by disadvantaged rural high school girls in relation to their interest in office work.

6. There is no difference in the perceptions of office work between advantaged rural high school girls and disadvantaged rural high school girls when both groups are not interested in office work.

7. There is no difference in the perceptions of office work between advantaged rural high school girls and disadvantaged rural high school girls when both groups are interested in office work.

8. There is no difference in the perceptions of office work between advantaged and disadvantaged rural high school girls reporting good grades.

9. There is no difference in the perceptions of office work between advantaged and disadvantaged rural high school girls reporting average grades.

10. There is no difference in perceptions of office work between advantaged and disadvantaged Spanish-American rural high school girls.

11. There is no difference in perceptions of office work between advantaged and disadvantaged Indian rural high school girls.

12. There is no difference in perceptions of office work between advantaged and disadvantaged Anglo rural high school girls.

13. There is no difference in the perceptions of office work held by advantaged Spanish-American, Indian, and Anglo rural high school girls.

14. There is no difference in the perceptions of office work held by disadvantaged Spanish-American, Indian, and Anglo rural high school girls.

15. There is no difference in the perceptions of office work between advantaged and disadvantaged eleventh-grade rural high school girls.

16. There is no difference in the perceptions of office work between advantaged and disadvantaged twelfth-grade rural high school girls.

17. There is no difference in the perceptions of office work between advantaged students who had completed beginning typewriting and advantaged students who were taking beginning typewriting.

18. There is no difference in the perceptions of office work between disadvantaged students who had completed beginning typewriting and disadvantaged students who were taking beginning typewriting.

Delimitations

This study was limited to the following:

1. Advantaged and disadvantaged rural high school girls as they were identified by State Directors of Business and Office Education in Arizona, Colorado, Idaho, New Mexico, Nevada, and Utah.

2. Rural high school girls who had taken or were presently taking beginning typewriting at the time the data for this study was gathered.

3. Rural high school girls, advantaged and disadvantaged, whose cultural background was Anglo, Indian, Negro, or Spanish-American.

4. Employed office workers who were living in a city and who graduated from a rural high school no more than three years prior to the time the data for this study was gathered.

Definition of Terms

The terminology peculiar to this study is familiar to most educators. The purpose in defining the terms listed below is to allow the reader to place the terms in their proper perspective.

Advantaged Students - Students whose family income was $3,000 or more per year. This definition was recognized by Dr. Albeno Garbin, Occupational Sociologist, The Center, and was given as a guideline to the investigator by the committee of business education and research experts.

Disadvantaged Students - Students whose family income was less than $3,000 per year. This definition was recognized by Dr. Albeno Garbin, Occupational Sociologist, The Center, and was given as a guideline to the investigator by the committee of business education and research experts.

Discrimination - The attitude of rural high school girls and office workers toward persons of majority and minority groups in offices and in the business and social community.

Job Prerequisites - The requirements of job entry and job advancement pertaining primarily to skills for office workers in a city.

Majority Group - The population of students and office workers whose cultural background was Anglo in origin.

Minority Groups - The population of students and office workers whose cultural background was Spanish-American, Indian, or Negro.

Office Employee - A young lady who lived in a city, worked in an office in a city, and was graduated from a rural high school no more than three years prior to the gathering of the data for this study.

Office Worker - A term synonomous with office employee.

Perceptions - The understanding of the rural high school students and office employees as to the requirements for employment in an office in a city and of the problems of social adjustment for living in a city.

Personal Relationships - The interaction of office workers both on and off the job with their co-workers, supervisors, and members of the community in which they live and work.

Requirements of the Job - The duties and responsibilities of the office employee after job entry.

Research Technician - An individual familiar with the study who assisted the investigator with the study.

Rewards of the Job - The benefits derived from working in an office in a city. This includes remuneration for services in the form of money and fringe benefits associated with money and social rewards.

Rural - A community located in Arizona, Colorado, Idaho, New Mexico, Nevada, or Utah with a population of 2,500 or less.

Rural High School - A high school located in a community of not more than 2,500 population or a consolidated high school that served more than one community, none of which were over 2,500 in population.

Rural High School Students - Girls who were enrolled in rural high schools located in communities of not more than 2,500 population or who were enrolled in a consolidated high school that was serving more than one community, none of which was over 2,500 population.

The Center - The Center for Research and Leadership Development in Vocational and Technical Education in cooperation with the Division of Adult and Vocational Research, U. S. Office of Education, located on the campus of The Ohio State University, Columbus, Ohio.

Chapter II

REVIEW OF PERTINENT LITERATURE

Introduction

The major objective of this study was to determine the perceptions of advantaged and disadvantaged rural high school girls toward office work. Since few of the rural students have office-work opportunities in rural areas, it is necessary for them to understand the occupational opportunities available to them in urban centers if they are to pursue an objective of office employment. All students participating in this study were in school in a rural community of twenty-five hundred population or less. An effort was made to include in the study as nearly as possible a selection of half advantaged and half disadvantaged schools based upon identification by the State Director of Business and Office Education in the six states from which the data was collected in the Rocky Mountain West.

An exhaustive effort was made to determine research that had been done pertaining to Business and Office Education in the rural areas of the United States. Much searching was done in the libraries at Colorado State College, in Greeley, and at Colorado State University, in Fort Collins. In addition, the resources at The Center for Research in Vocational and Technical Education at The Ohio State University in Columbus were used. Periodicals for business teachers such as the

Balance Sheet, Business Education Index, National Business Education Quarterly, The American Vocational Association Journal, The National Education Association Journal and others were examined meticulously. All efforts failed to produce evidence of research in this area.

Guidance from the Center was particularly helpful in setting the guidelines for this study. Specific suggestions were made by the committee of business education and research personnel called in to formulate the guidelines for conducting the research.

In the process of gathering the data for this study, the author and his research assistant visited each school in the geographical area specified in the delimitations. Many rural schools were observed to have excellent teachers, excellent facilities, and the necessary equipment to train a young lady to do the type of work required in an office in a city. Some of these schools were located in the most isolated, remote areas of the West. But, in addition to finding many rural schools of the type mentioned, the author and his assistant were dismayed to discover youngsters in schools that were completely inadequate for training for the world of work. It would be unfair to judge the teacher's competence with the short visit made in each school, but the obvious condition of facilities and equipment certainly were disadvantages to those students in attendance.

Spanish-American, Indian, and Anglo advantaged and disadvantaged students were included in the study. Consequently, an understanding of the disadvantaged students in these cultures is appropriate to the related literature in this study.

The Rural Disadvantaged

The disadvantaged rural student is usually a student from a poor home. As a result of being poor financially, the disadvantaged student's problems become more and more complicated through lack of exposure to the middle-class luxuries and values with which he must compete if he is to leave the rural community. Alman (1:6-8) describes the rural poor as follows:

> A substantial number of children of the American poor live in rural poverty. Rural poverty can be characterized by isolation, physical hardship, lack of many of the benefits of even an "old fashioned" industrialized society (such as plumbing, heat, and adequate transportation), extremely poor schools, and a general atmosphere of hopelessness. Rural poverty is tied to the long-term decline of the family farm, industrialization of the farm economy, the replacement of farm labor by mechanization, and the natural fertility of the land.
>
> This type of poverty has been the life experience of large numbers of Appalacian children, of the children of Southern sharecroppers, migrant workers, Mexican-American field hands, American reservation Indians, and of the children of the poor scattered throughout the United States in thousands of by-passed small towns and villages.

The disadvantaged rural students are, in part, victims of the changing times. Modernization of the farm has changed the way of life of the rural people. Industrialization of the farm has eliminated to a great extent the need for much of the farm labor and has caused the sharecropper to virtually disappear from the American rural society. It has squeezed the small farmer from a once normal standard of living into the throes of the low-income group of the rural population. Galbraith (11:324) points out the plight of the rural American attempting to make his living in agriculture:

> A substantial share of these low incomes are in agriculture--in 1954, 27.4 per cent of all farm families had cash incomes of less than a thousand dollars as compared with 4.9 per cent of urban families who were below this level.

Poverty does not limit itself to any one particular group of people nor does it limit itself to any culture. There are, however, more obstacles encountered in rising from the ranks of poverty to the advantaged ranks than most of us who are not considered disadvantaged understand or appreciate. Alman (1:8) describes the origin of many of our poor people in America and points out the problems they have in the world of work and in being categorized as poor because of their ethnic background:

> While the largest number of the children of the poor are born into white families, a substantial number are born into identifiable ethnic and racial groups. Thus, a relatively large percentage of American Indians are to be found in the ranks of the poor; this holds true also for Negroes, Puerto Ricans, and Spanish-Americans.
>
> Ethnic poverty is explained by a universal observation: "The last to be hired, the first to be fired." It can be characterized by its tenacity and its persistence over succeeding generations. So closely are ethnicity and poverty associated that the one is often taken for the other. Thus, in the minds of many Americans, all Negroes are poor.
>
> When asked to give examples of poor persons, the New York dweller will cite the Negro or the Puerto Rican, the Arizonian will cite the Indian, and the Texan will cite the Mexican-American.

The Culture

Two distinct cultures are involved in this study, the Indian and the Spanish-American or Mexican-American. In addition to facing the problems of the disadvantaged whites, members of these two cultural groups have additional handicaps that present seemingly insurmountable obstacles in their efforts to escape poverty. Tradition, lack of exposure to other cultures, and poor education are some of the problems faced by the Indian and Spanish-American students today. Encouragement to complete school and learn a trade or skill that will require leaving the security of the home on the reservation or in the small hamlet does not necessarily appeal to the adult segment of the rural poor. Their poverty is accepted in some cases as a way of life, and they expect that their children will continue to live that way of life as a matter of course. It is not uncommon today to observe horse-drawn wagons on the reservations. If one is to look closely, it can be noticed that the wagons usually have rubber tires. Insignificant, to be sure, to the casual observer, but the adoption of the white man's way of life appears to take time; the Indians and Spanish-American people appreciate their culture and have definite plans for retaining it. Their progress into the space age will be marked by slow acceptance of the white man's way of life. They will remain victims of the changing times and will remain poverty stricken in the white man's standard. Wax and Thomas (28:145) point out some of the difficulties of the American Indian in his dealing with the white culture in the following:

> Social discourse is one of the areas where Indians and whites most easily misunderstand each other. Placed in an informal social gathering, such as a small party where he knows only the host, the Indian will usually sit or stand quietly, saying nothing and seeming to do nothing. He may do this so naturally that he disappears into the background, merging with the wall fixtures. If addressed directly, he will not look at the speaker; there may be considerable delay before a reply, and this may be pitched so softly as to be below the hearing threshold of the white interlocutor; he may even look deliberately away and give no response at all.
>
> In this same situation, the white man will often become undiscourageably loquacious. A silent neighbor will be peppered with small shop talk in the hope that one of his rounds will trigger an exchange and a conversational engagement. If the neighbor happens to be an Indian, his protracted silence will spur the white to even more extreme exertions; and the more frantic the one becomes the less the response he is likely to elicit from the other.

> Ironically, both parties are trying hard to establish communication and good feeling. But, like Aesop's would-be friends, the crane and the fox, each employs devices that puzzle, alienate, and sometimes anger the other.

To bring the Indian from his place in poverty to a standard of living acceptable by the white man as minimum, an understanding of the culture is of paramount importance. A fast trip to the reservation has left many Americans with a feeling of pride that there is still the stoic Indian who seemingly lives a modest life without the frills that are enjoyed by the city dweller. What has not been seen nor understood is the reason for the Indian's living the life that the tourist observes on his casual, once-in-a-lifetime visit. Lee (17:11) makes an effort to give a true insight into the cultural aspects of the Indian way of life by describing the communal attitude of the Navaho Indians:

> Within this structured universe and tightly knit society, the Navaho lives in personal autonomy. Adults and children are valued for their sheer being, just because they are. There is no urge toward achievement; no one has to strive for success. In fact, neither is there reward for success, nor is success held out as a reward for hard work. Wealth may be the result of hard work and skill, but obviously, it is also the blatant result of lack of generosity, lack of responsibility for one's relatives, perhaps even of malicious witchcraft. No good Navaho becomes and remains "wealthy" in our terms.

Few understand Indian culture; many read the lighter things that appear in our news media and think that they know the way of the Indian because they have observed their antics in Western movies on television. Bagdikian (4:125) attempts to bring to light the true picture of the American Indian as he reports:

> Joe Chico is important to the story of the poor because he represents the 500,000 Indians of the United States, almost all of them impoverished. The comic strips concentrate on the few oil-and-uranium Indians; the Indian of American humor is the millionaire Kickapoo from Oklahoma who buys Kansas City hotels

> for the night. In literature it is, "Lo, the poor Indian!" of Alexander Pope whose adjective "poor" is ironic because the Indian is rich in spirit. But the dominant economic fact about the American Indian is that he is extremely poor and this, inexorably, is corroding his spirit.

The break-through to the Indian culture has been and will continue to be a slow process. Education appears to be the answer, because the Indian adults are beginning to realize that adjustment to the white man's standards does not necessarily mean the destruction of his own culture--just a modification of some of it.

Many small communities in Colorado, New Mexico, and Arizona are populated primarily by Spanish-American people. Their plight parallels that of the Indian to a degree, but is not as severe in tradition and cultural handicaps. Where the Indian tends to withdraw from the mainstream of American society, the Spanish-American is making an effort to discard his poverty through acceptance of the social customs and educational processes necessary in our society today. His problem, primarily, is that of being accepted by the American white as an equal, first-class citizen. Cooper (7:22) points out problems that are incurred in communities where discrimination is evident among cultural groups:

> First, that prejudicial attitudes are inversely related to the degree of structural assimilation existent within a community. This generalization supports the major theoretical proposition of this paper, that of interpersonal contact decreasing prejudice. Second, that the structural assimilation of one discernible minority group. . . . Third, that similar prejudicial attitudes will be exhibited in communities that are characterized by the lack of interpersonal relationships with a discernible minority group.

Cooper's findings showed that Anglos exhibited significantly less prejudice toward Spanish-Americans when the number of Spanish-American people was high in a community. Conversely, it can be assumed from his report that when a Spanish-American leaves the community in which he had the opportunity of integration, his chances of being the object of discrimination increase greatly when the Spanish-Americans are a proportionately lower percentage of the population.

Anderson and Safar (3:40) indicate that minority-group children begin life at a disadvantage:

> Minority group children begin school at a distinct educational disadvantage, encumbered by a lack of middle class manners and self-control, lacking adult models with whom to identify, deficient in cultural experiences that profoundly offset aptitude and achievement measures. Consequently, they perform at a much lower level than their Anglo classmates, thus fulfilling the expectations of their parents and teachers and guaranteeing their failure in the school and ultimately in society.

These same two authors used as part of their criteria for distinguishing equal educational opportunities for Spanish-Americans, Indians, and Anglos as physical facilities, curricula offered, characteristics of the instructional and administrative staffs, teacher-pupil ratio, per pupil expenditures, teachers' salaries, etc.

Whether the disadvantaged high school students are Spanish-American, Indian, or Anglo, some of their problems are shared. Amos (2:12-13) states some of the characteristics of disadvantaged youth and relates rural problems that these youth have:

> Underlying the absence of long-range goals is the characteristic of passivity noted in sociological research on disadvantaged youth. They may feel there are so many counts against them there is no use trying for the kind of job they might have dreamed about. Often these youth have experienced so much failure in school and elsewhere that they have little faith in their own ability to get ahead. And, in fact, they do not know where there is to go. Their self-esteem is so low that they shrink from discussing their problems, feeling people would not understand. This is one reason why many youth lose jobs or

> walk out of them needlessly. Often a discussion with the employer could iron out difficulties that to the youth seem insurmountable, especially in view of their limited communication skills.
>
> . . . Rural youth have many of the same problems, as well as others which have come about through the difficulties of adjustment to the mechanics and social mores of life in a town or city environment. Aspirations of the farm youth have been noted as being somewhat low, perhaps reflecting, in part, a lack of information on occupational opportunities. The parents, as their parents before them, have always lived on the farm. Consequently, they are not equipped to be of much help to sons and daughters who must leave familiar surroundings and migrate to the city. Successful models in a wide range of occupations are rare in farm environment; therefore, a rural youth has little chance personally to identify with someone who is an established success in his chosen field.

There is no reason to believe that the migration of the rural youth to the city will lessen in the immediate future. It has been pointed out that there is less need for the rural citizen each year as the mechanization of the farm becomes more prominent. The Educational Policies Commission (10:39) relates in their conclusion in a study of disadvantaged Americans that:

> Millions of disadvantaged Americans are congregated today in congested sections of the large cities and in the rural areas. It is valid to ask what America means to these millions of people. Certainly it has not been for them a land of equal opportunity. The schools present the best hope for overcoming their cultural handicaps. The efforts of skillful educators and the support of an understanding community have combined to make of schools the mighty instruments which only schools can be. If the public fully backs its schools--and only if it does--the time may come when no American is culturally disadvantaged.

Moving the rural disadvantaged person into the urban disadvantaged ghetto solves no problem; it compounds it. The realization that the rural disadvantaged is moving to the urban centers without the necessary tools to become a contributing member of the urban community has led educators to look at the problem more critically and attempt to solve it through the schools. They have discovered that the disadvantaged do want an education. Riessman (21:15) states that all do not desire the education for the same reason, but that it is, indeed, part of the answer to the problem:

> Education is desired by the culturally deprived more than is generally recognized. Different segments probably want education for different reasons. Some desire it for vocational improvement, others so that they will not be deceived as easily in the modern world, still others because of their respect for science. The difficulty in the school system arises because the school stresses education for its own sake and as a means for the development of self-expression--orientations which the culturally deprived do not share. Furthermore, the discrimination unwittingly practiced in the school aggravates the problems, and produces the schism between school and education.

Pointed out rather vividly in the above paragraph is the gap that exists between education and the disadvantaged or culturally deprived students. The schools are meeting the needs of their curriculum rather than the needs of the people for whom the curriculum should have been designed.

Kaplan (15:42-43) concurrs with Riessman on the issue of the disadvantaged student becoming of grave concern to the educator. He writes:

> Culturally disadvantaged youth--and by this we usually mean poverty stricken youth--are the subject of growing interest among the nation's educators. For the most part, the problem of educating this group is an ancient one, but it is becoming more and more visible as rural slums are transplanted to the great city, where they grow and fester. (The problem still exists in rural areas, of course, in all its depressing forms.) Because urbanization and migration to the cities continue unabated, concern will mount.

To fulfill the responsibility of educating the culturally disadvantaged and the poverty stricken rural youth will require a lot of cooperation among the rural community and the state and federal governments. Isenberg (14:244-45) discusses this problem in the following paragraphs:

> To focus upon the problems that rural migrants create after they have moved to the city is much the same as treating a disease without concern for its cause. For, whereas many rural disadvantages will continue to stream into our cities, millions more will remain in the country and seek subsistence there.
>
> As yet, rural school systems, except in a few scattered instances, have not taken direct steps to develop programs for their disadvantaged comparable to the experimental efforts under way in many cities. Nor is articulation between rural and city schools sufficient to assist substantially with mobility adjustments. Such a simple thing as the transfer of pupil records, for example, would help, but even this has not been worked out with any consistency.
>
> The challenge to both city and country is to develop in the disadvantaged the ability to adjust to a society and a future for which they are, at present, largely unprepared. Among the characteristics of the rural disadvantaged--both children and adults--are a low level of aspiration, a tendency to set only short-term goals, values which differ somewhat from acceptable norms, and a general unfamiliarity with cultural activities which lead to enriched living.
>
> School district reorganization and consolidation have done much to help rural schools attack the problems confronting them because relatively large numbers of students can be taught in consolidated schools, rural areas are able to afford more well-qualified teachers, more guidance counselors, and more psychologists than ever before. Furthermore, an increasing number of summer school programs, bookmobiles, outdoor education programs, recreation programs, and other efforts give promise of reaching more of the rural disadvantaged who previously had no access to such opportunities.
>
> Some help from outside the school is also coming. Significant federal and state programs designed to increase employment opportunities in rural areas and to develop employable skills on the part of the unemployed are now under way.
>
> Nonetheless, much of what should be done in rural areas for the culturally disadvantaged must be undertaken by schools. In many rural communities, the school is the only social institution with resources and personnel to give real and substantial help to young people, whether they migrate to the city or remain at home. The chief hope for eliminating proverty and social disadvantage thus rests with education.

It has been pointed out previously that the effort being made in the disadvantaged urban areas has not extended to the disadvantaged rural areas to any great degree. Perhaps the fact that the need is now recognized is progress. Hargrove (13:46) points out rather clearly the responsibility of the rural school in attempting to solve the problems of the rural disadvantaged:

> A heavy burden is placed upon rural schools as they attempt to disseminate information and skills to those who will leave for urban areas--a burden which frequently results in the inability to reach urban standards in their training for urban vocations. Many economists feel that a large number of the problems connected with migration would be solved simply by the provision of more and better information concerning non-farm employment for rural people.

With the passage of the Vocational Act of 1963, The Elementary and Secondary Education Act, and other significant Acts that have allowed for Federal expenditures in rural areas, some easement of the rural school problem regarding finances has brought about more aggressive attitudes toward solving their problems. Leadership in obtaining the funds available and in putting them to the most extensive and realistic use is now a challenge to educators. The Act of 1963 requires the vocational teachers to have some work experience. This requirement means that for a community to participate in vocational funds the teacher must have had actual work experience in the field in which he teaches. The advantage to this requirement is that the teacher is able to relate his work experience to the students and, thus, make the instruction more meaningful in terms of the students' vocational aspirations.

The School

One of the responsibilities of the school appears to be that of preparing the rural students for job entry in city environments. The employer in the metropolitan centers is unconcerned about the geographical background of the employee; his concern is whether that person can fit into his office as a productive employee. Rural people do succeed in the urban society, and a goodly number of those who have experienced success worked in office occupations. Swanson (25:200) writes about office employment as it relates to rural people as follows:

> Just as in any field of work, business offers employment opportunities covering a wide range of training requirements--from certain semiskilled sorting and filing jobs to managerial and executive positions . . . The importance of clerical training for rural as well as urban youth is emphasized by the large proportion of the millions of recruits for clerical work who are drawn from rural areas. It has been estimated that approximately 25 million workers entered clerical occupations during the past 10 years with an average tenure of from three to four years. Of the number, nearly half came from rural areas or smaller communities.

One of the interesting observations in studying training programs designed for office entry is the wide range of standards required by individual teachers. Still prominent in the business education classroom are the "three R's" of typewriting, shorthand, and bookkeeping. Because these are apparently the most-used tools of the office trade, many rural schools have settled for these courses and little else. Yet, the "standards" required for getting into the programs range from a "C" in English to the ability to type sixty words per minute. Built-in obstacles keep many of the students who need the training most from entering the program. Apparently some teachers have not been in an office recently nor taken the time to find out just what job-entry skills and requirements really are. An interesting study by Cook (6:66) revealed some job requirements and is reported as follows:

> Recently the writer has had the opportunity to review the summary of over 165 personal interviews with businessmen in the Detroit area. These were structured interviews conducted by graduate business education students. The interviewers were confined to companies employing 10 or fewer employees. Some significant findings include . . . 4) almost all of the companies, 97%, demanded typewriting as a prerequisite for hiring. 5) Only 22 demanded shorthand as a prerequisite. Of this number, only 12 actually hired for a stenographic position.

The above paragraph indicates that a large percentage of the firms included in that survey do not require employees to be able to write shorthand. The fact that so much emphasis on shorthand is found in the rural schools could be the relative inexpensiveness of offering it in the curriculum. It certainly is a desirable tool to have when looking for office employment. The point, however, is that rural schools are often limited in the courses they can offer to those students who will eventually be working in cities in offices.

Such things as personal behavior in the office, discrimination, and the rewards that result from office employment are essential to the understanding and appreciation of the requirements of office employees. For example, girls should know whether they have the same salary and advancement opportunities as men. According to Lanham (16:629) women are discriminated against in the labor market. She writes:

> In summing it up, it can be said from the findings of this survey that women are discriminated against in two respects: a higher standard of performance is required of them than is required of men, and women are paid less than men for work of equal rank.

Although this is a seemingly unfair way to treat women workers, it appears to be realistic. Consequently, it might save the rural high school graduate a lot of heartache to know this in advance of office employment rather than finding it out after being employed.

The skills of typewriting, shorthand, and bookkeeping are no more difficult for a rural high school student than for the urban high school student. The difference in learning them might be in the appreciation of what they can do for the individual. But, the mastery of the skills is not enough to prepare a student for employment. Many employers want young people who can "get along" well with fellow employees and who can and will adjust to the personalities of the office.

This adjustment could be very difficult for the disadvantaged rural high school student who migrates to the city to seek employment. In the first place, it is quite possible that the rural high school student has never had the exposure to the world of reality and will, therefore, find himself in a completely different environment. Daniel and Keith (8:213) write:

> In disadvantaged pockets the child is seldom given the exposure to values and ways of life other than his own. He is restricted geographically and socially to the disadvantaged area and reinforced in the values and way of life of his environment. It seems that it would be advantageous to make certain that the disadvantaged are given the opportunity to see, try out, and evaluate other modes of life.

If the exposure has never been available to the students, one cannot expect a great deal of success when the student leaves the culture in which she has lived her entire life. The individual will not understand any other way. Snygg and Combs (24:11-15) explain the reasons for many people being unable to adjust to behavioral standards that are set outside of their usual surroundings as follows:

> The individual's total understanding and perceptions are the determining cause of his behavior. His total field of understandings and perceptions is not abstract, artificial or

> unreal. It is the everyday surroundings in which he lives and takes to be reality. The individual's interpretation of reality results in a more meaningful behavior. No matter what he is told, his own understandings of reality will always seem real, substantial and solid.

The above paragraph describing the adjustment factors to behavior not experienced is reinforced by Rogers (22:481) in his description of personality development:

> Personality development is the end point based upon the individual's total experiences and his understandings about himself. When principles of the perceptual theory have been achieved, the individual is free to grow, develop, become more self-directing, and make better use of his personal capacities and abilities.

It is difficult in this day to realize that there are as many disadvantaged students in our rural schools as the statistics indicate. Cultural disadvantage is evident by the previous quotations in this chapter. This cultural disadvantage is not to be understood as anything more than a lack of communication between the peoples of the various cultures. Since the white man composes the majority of the population in this country, it behooves the cultural groups in the minority to exert as much effort in making an adjustment to his way of life as for the white man to work toward uplifting the disadvantaged minority group.

Part of the gap between cultures can be closed by including in the curriculum courses on human relations. Place (18:215) feels strongly about the value of human relations in business education and writes: "The problem of good human relations is so important and far reaching that all educators should concern themselves with it even though the information is hard to teach." It has often been said that more people lose their jobs because of their inability to get along with fellow employees than for not being competent in their skills. Evidence of this statement is brought to light by the research conducted by Ligouri (18:67-68) who wrote:

> Summarized from studying 120 beginning office workers in greater Cincinnati, Ohio, and greater Pittsburgh, Pennsylvania, areas that approximately half of the beginning office workers were troubled by personal problems stemming from jealousy, resentment toward supervisors, personality clashes, and office cliques.

All of the documented evidence showing the requirements of job entry and advancement procedures mean little to the rural disadvantaged student who does not even know how to get along with his classmates because they are of a different culture. What is read in a book is not realistic because in the minds of the disadvantaged reader it is meant for someone else. The golden opportunity for the schools to meet the challenges of the times in preparing the advantaged and disadvantaged rural high school girls to enter office employment is more evident today than ever before. The charge has been made to education to prepare all students for first-class citizenship, not just those who are headed for the ivy-covered walls of our colleges and universities.

But to prepare all of the students it is necessary first of all to understand them. If the challenge is to be met by the schools, means of understanding must be found and programs designed for all of the students must be prepared. Currently the blame is being placed upon the schools for the social disorder in the United States. Gordon and Wilderson (12:1) recognize the place of the blame and write:

> Over the last two decades a number of economic, political and social factors have combined to bring to the forefront of public attention the condition of underdevelopment among human beings in all parts of the world. Although the American people have become increasingly aware of the economic and social

> disparities which exist everywhere on the globe, nowhere are the handicaps imposed by deliberate and accidental underdevelopment of human resources a greater source of embarrassment and concern than in the United States in the second half of the twentieth century. Faced with an embarrassing situation, public opinion has performed as it is wont to perform--it has looked for a scapegoat--and, in this situation, no one has seemed more available to bear the blame than the professional educator. The choice is not without justification. Granted that the school has not created the conditions that make for social disadvantage and economic deprivation. It is, nevertheless, quite clear that neither have professional educators done much to help significantly the children who are products of these conditions--and this in spite of the fact that there have been tremendous gains in educational technology and educational resources during the first half of the century.

The charge has been made to the public schools; the lack of meaningful education has deprived many students of opportunities to join society as productive members. This study is an effort to discover some of the perceptions of the rural advantaged and disadvantaged students toward office work and to make a contribution to their understanding of the realistic world of office work.

Chapter III

METHODS OF RESEARCH

Introduction

The purpose of this chapter is to describe the procedures used in selecting and developing this research project. A discussion of the topic, the methods of investigating the topic, and the methods of handling the data are presented.

Selection of the Problem

A study was conducted by Franklin Dye (9), Research Associate at The Center, in selected cities in the United States to determine the perceptions of economically advantaged and disadvantaged high school girls. Included in Mr. Dye's research was a study of differences in cultural groups. His work was under the direction of Dr. Harry Huffman, Specialist in Research in Business and Office Education at The Center.

Since the study proposed by Dye considered only the high school girls living in large cities, Dr. Huffman felt that expanding this kind of research to include the rural high school students of the United States would reveal equally valuable information for business educators. Consequently, a committee of educators and researchers was called together at The Center to determine the feasibility of such a study, and if found to be feasible, to offer suggestions for its development. The list of business educators and researchers appears in Appendix I.

It was the concensus of the committee that the study would yield valuable information to business educators and that there was a need for this kind of study in the rural area of the United States. No known research had been done in the rural areas to determine what the students' perceptions were of living in a city and working in an office in a city.

Selection of the geographical area to be included in the study was significant. The committee agreed that the inclusion of the states of Arizona, Colorado, Idaho, Montana, Nevada, New Mexico, Utah, and Wyoming would give a representative resemblence to the area in the continental United States known as rural. They further agreed that there was sufficient diversification in geographic area and in population to consider this group of states representative.

Further consideration to the term "rural" was given to the study by the committee. Dr. Alben Garbin, Research Specialist in Sociology at The Center, described "rural" in terms of population as a community or town with a population of 2500 or less. The committee agreed that this definition was sufficient for this study and, consequently, limited it to communities or towns within that population scope.

Selection of Participants

The question of whom to include in the study was one that was discussed in detail by the committee of educators and researchers. In the early stages of the discussion, it was felt that all high school students who had taken beginning typewriting should be included. However, the likelihood of finding many male students employed in office work appeared to be rather difficult because of the responsibility of young men to serve their country in the military service and the desire of many young men to enter college. As a result, male students and male office workers were eliminated from the study. A decision was made to first include the eleventh-grade girls who had taken one year of typewriting. Because of the inconsistency in the year that beginning typewriting is offered in the rural schools, it was decided to include twelfth-grade girls who had taken beginning typewriting and tenth grade girls who were enrolled in beginning typewriting at the time the data was gathered. The important fact recognized by the committee was that the girls would either be in a typewriting class or would have previously had typewriting. A knowledge of the use of the typewriter, it was felt, opens the door to more office jobs than any other office skill.

Because advantaged and disadvantaged students were being compared in the study, it was important to include schools that were considered to be in one of the two categories. State Directors of Business and Office Education were asked to identify advantaged and disadvantaged schools according to the amount of State and Federal money contributed to a school by State agencies. The decision to have the communities identified as advantaged or disadvantaged by State Directors was felt to be wise in that the Directors had a sound knowledge of financial conditions of communities within their states.

State Directors were further asked to identify communities under 2500 population that were predominately Anglo, Spanish-American, Indian, or Negro because each cultural group was to be studied and compared in this research. No Negro communities were identified by any of the State Directors, and only one Negro high school girl was found in the population sample. Therefore, Negro student comparisons were eliminated from the study.

In addition to the high school girls, office workers who lived in cities and worked in offices in cities were asked to participate in the study. These office workers must have been employed at the time the data for this study were gathered, and they must have been living in a city at the time they participated in the study. All of the office workers must have taken some typewriting as part of their rural high school training.

Development of a Data-Gathering Instrument

Once the direction of the study was established through identification of the participants, the information that was to be obtained was identified. Members of the committee submitted questions which they felt should be asked of rural high school students and which would be meaningful to business educators in helping the students make adjustments to city offices and city life. Many questions were submitted, and categories were suggested into which the questions could be grouped. Questions used in the pilot study appear in Appendix II.

After receiving some assistance from the committee, the investigator developed an informal questionnaire for use on a pilot basis. A list of sixty-seven statements was developed for the pilot study, with the intention of eliminating ambiguous statements and cutting the list to fifty statements. Prior to administering the instrument on a pilot basis, however, the services of Dr. Wade Andrews, Rural Sociologist, Utah State University, Logan, Utah, were solicited. He examined the instrument and found it to be satisfactory for obtaining the information sought by the investigator. He further felt that there would be little or no misinterpretation of the statements on the questionnaire by rural students. Dr. C. Dean Miller, Psychologist, Colorado State University, Fort Collins, Colorado, was also asked to review the instrument and offer any suggestions prior to the pilot study. He also agreed that the instrument was designed in such a way that there should be little or no difficulty in its administration and no repercussions should arise as a result of rural students' participating in the study. Each member of the committee of business educators and research specialists was mailed a copy of the instrument for his evaluation. Dr. Harry Huffman, The Center, was the only member who returned the instrument; and his comments were favorable for going ahead with the pilot study. To validate the instrument further, a class of twenty graduate students comprised of business and office education teachers filled out the questionnaire and evaluated it for the investigator. This class was on the Colorado State University campus during the 1967 summer session.

The Pilot Study

Through the cooperation of a high school business and office education teacher in Las Animas, Colorado, Mrs. Maxine Marques, thirty-four high school girls were selected to participate in the pilot study. Las Animas was selected because of the availability of the students who participated and because Mrs. Marques was willing to call the girls together for the study. Las Animas is a community of approximately 3,000 population. It was felt that the clarity of the questions and the necessity of the responses representing more than one cultural group was more important than confining the pilot study to a population of less than 2,500. It was also believed that since the study was made in a community of less than 3,000 that the information obtained in the pilot study would be reliable for use in the communities of 2,500 or less.

Thirty-four girls participated in the pilot study. Twenty-three of the girls were from the Anglo culture and eleven from the Spanish-American culture. There were no Negros included because there were no Negro girls who qualified in the community.

With the assistance of a research technician, the final questionnaire consisting of fifty questions and a space for comments by the respondents was designed. Statements eliminated from the questionnaire were those that neither added to the study nor appreciably reduced the effectiveness of it. Some of the questions eliminated from the original list of sixty-seven bordered on duplication of questions remaining in the study. Some questions were not compatible with the categories developed for the study. The final draft questionnaire appears in Appendix III.

By arranging the statements on the questionnaire in a predetermined order, each statement was separated from a like statement (one fitting into the same category) by five other statements. This method was developed for two reasons: 1) to give the respondents a chance to change their train of thought as they marked the questionnaire, and 2) to contribute to the speed with which the data could be processed after it was gathered. As an example, questions one, six, eleven, etc., all dealt with job requirements; questions two, seven, twelve, etc., all dealt with rewards of the job, etc.

The questionnaire was designed for use both by students (advantaged and disadvantaged) and office workers. To obtain information needed for the study from both groups and to keep the questionnaires identifiable, different cover sheets were used for the students and the office workers. Examples of cover sheets are included in Appendix IV.

The State Director of Montana chose not to supply data and this decision resulted in the elimination of that state from the study. The State Director in Wyoming expressed his willingness to cooperate but felt that he could not identify any disadvantaged schools in that state. Consequently, data from six states were included in the final results of the study.

The list of schools visited in the six participating states appears in Appendix V. No schools in Nevada were listed by the State Director as disadvantaged. All other states reported both advantaged and disadvantaged schools.

The method of obtaining the desired data was through personal contact with the teachers in the rural high schools. With the assistance of the research technician, all schools included in the study were visited and cooperation was solicited from administrators and classroom teachers. The procedure in making the contact was to first visit the high school principal and get his permission to talk with the classroom teacher who was responsible for instruction in typewriting. After getting permission from the principal to visit the classroom teacher, the cooperation of that teacher was solicited. With the exception of one school, all of the teachers were very interested in the study and were quite willing to cooperate. Each cooperating teacher was given a set of instructions for administering the questionnaire to members of her typewriting class who qualified for the study. The set of instructions is included in Appendix VI. Each teacher was also given large manila envelopes with the proper amount of postage for returning the questionnaires to the investigator. A postage chart was made in advance to coordinate the time factor involved with the teacher.

Classroom teachers and counselors were asked to participate in helping to locate high school students who had been out of high school for not more than three years and who were living in a city and working in an office in a city at the time the data for this study was gathered. They were asked to mail a questionnaire to those ex-students. A stamped envelope for returning the questionnaire was left with the counselors and teachers as well as postage to be used to mail the questionnaires to the ex-students. Many of the teachers contacted were new on the job and did not feel that they had the time to do this type of follow up. Those who had been on their jobs for a number of years knew where many of their graduates were working and were willing to cooperate in this part of the study. In some cases, the counselors had information concerning the graduates of the high school; and they were very cooperative in participating in the study.

In addition to asking the cooperation of the high school teachers and the counselors in finding former students employed in offices in cities, interviewers were employed by the investigator to locate office workers who qualified for the study in the larger metropolitan centers in the six states mentioned in the Rocky Mountain area. Approximately one-third of the office employees were found by the interviewers.

Analysis of the Data

Two statistical analyses of the data were made using the chi square test and analysis of variance. Advantaged and disadvantaged students were compared according to grade level, amount of typewriting, cultural background, interest in office work, and grades to determine if there were significant differences in the perceptions these two groups held toward living in a city and working in an office in a city. These groups were also compared with office workers to determine how their responses to the statements on the questionnaire differed.

The same questionnaire administered to the students was administered to office employees to determine the correct responses to the statements. The respondents had a choice of three answers to each statement: 1) true, 2) don't know, and 3) false. When the majority of the office employees marked a statement "true," "don't know," or "false," the majority response was given a weight of "3," the next most frequent response was given a weight of "2," and the least frequent response was given a weight of 1." For example, on the item "Office workers who are not friendly with their supervisors will not get promotions," 47 percent of the office workers marked this item "false," 29 percent marked it "true," and 23 percent marked it "don't know." Of the 326 office employees surveyed, some did not mark the item; consequently, the total percentage does not add to 100 percent. The weight assigned to the responses to the quoted statement would be 3 for "false," 2 for "true," and 1 for "don't know." In other words, the response recorded for each statement by the highest percentage of the office workers received the highest weight value; the next highest percentage received the next highest weight value; and the lowest percentage of response by the office employees received the lowest weight value.

A key, which appears in Appendix VIII, was made from the responses of the office workers for scoring the responses of the students. After each student questionnaire was scored, the values of the ten statements in each category were added; and a statistical comparison with the office employees was made. The analysis of variance test of significance showed the relationships of the means of the office employee group compared with the means of the student group. The closer the means of the student group compared with the means of the office employees, the more similar were the perceptions of the two groups. Also included in Appendix V is a table of percentages for advantaged and disadvantaged students and office workers.

Electronic data processing equipment was used in computing the chi square and analysis of variance statistics for this study. All data was put on punched cards and fed into an International Business Machines 1401 computer and/or a Controlled Data Corporation 6400 computer. Free time on the computers was granted by the Colorado State

University Graduate School. However, the investigator reimbursed a data processor for programming assistance and for the material used by the data processor for completion of the statistical analysis. Standard formulas were used with both the chi square analysis and the analysis of variance. Both statistical formulas appear in Appendix IX.

To test the null hypotheses referred to in Chapter I, chi square and analysis of variance tests were used at the .01 and .05 levels of significance. Smith (23:89) reported as follows:

> . . . the criteria for acceptance or rejection of hypotheses are arbitrary, but a conventional rule draws the line at P (probability) equals .05 and regards a hypothesis as inadequate or unsatisfactory for values of P smaller than this (that is, for values of X^2 larger than the value corresponding to a P of .05).

There are two types of errors that can be made when testing a hypothesis. Rejecting a hypothesis when it is true is called an "error of the first kind." This is an alpha error. An error that would accept a hypothesis when an alternate is true is called a beta error. Walker and Lev (27:60) wrote: "Most statisticians do not look with favor upon choosing an extremely small level of significance because that would expose them to a large risk of error of the second kind."

Because this study reports differences in perceptions of groups, chi square statistical treatment of the data to test differences seemed appropriate. Barnes (5:23) stated:

> Chi square, symbolized by the Greek letter X^2, is a test of the significance of differences. It is most commonly used when data are in frequencies such as the number of responses in

> different categories . . . The investigator in research upon the attitudes of people finds this statistic a very useful one.

From chi square results it was possible to determine similarity of perceptions and congruence of the perceptions of groups used in the study. Wert, Neidt and Ahmann (29:172) recommend the use of analysis of variance test of significance by stating: "The analysis of variance has been designed to provide an efficient test of the significance of the differences between two or more groups simultaneously." Consequently, when the comparisons were made on a group basis, the analysis of variance test of significance was logical.

Chapter IV

FINDINGS

Introduction

Statistical analyses and a discussion of the data collected to determine perceptions of rural high school girls and office employees toward office work are presented in this chapter. The data are reported according to the groups of respondents being compared. Each section includes comparisons of the perceptions of office work held by the groups being compared. Each section contains perceptions of job prerequisites, rewards of the job, personal relationships, job expectations, and discrimination.

Analysis of the Data

The questionnaire administered to the participants in this study contained fifty statements. The statements were categorized for convenience in analyzing the data. Consequently, five tables make up a complete set of chi-square comparisons for the groups being reported.

An analysis of variance test of significance was calculated to determine differences between mean scores of the groups. Where it was appropriate, tables reporting significant differences according to the analysis of variance test are reported at the end of each group.

Table 54 indicates the percentage of response figures of office employees and advantaged and disadvantaged students for each of the statements on the questionnaire. From this table weights were assigned to the item responses in order to establish mean scores for computing the analysis of variance tests of significance.

Advantaged and Disadvantaged with Office Workers; Advantaged with Disadvantaged

Tables 1 through 5 contain item analyses based on chi-square comparisons of advantaged and disadvantaged students' perceptions of office work with office workers and comparisons of advantaged students with disadvantaged students in their perceptions of office work. Tables 6 and 7 contain the results of an analysis of variance test of significance of difference between means when the advantaged and disadvantaged students were compared with the office workers.

Table 1 contains the results of the chi-square analyses of the comparisons of advantaged and disadvantaged students' perceptions of office job prerequisites with those of office employees. A third comparison was made between the advantaged and disadvantaged students. When the responses of advantaged students were compared with the responses of office employees, the two groups differed at the .01 level of significance on nine of the ten items relating to job prerequisites. The responses of the two groups did not differ significantly on the item stating that if a person worked in an office she would not have to take a bath every day.

The responses of the advantaged students differed with the office employees' responses on the item regarding typewriting's

TABLE 1. ADVANTAGED AND DISADVANTAGED STUDENTS' AND OFFICE EMPLOYEES' PERCEPTIONS OF OFFICE JOB PREREQUISITES BASED ON CHI-SQUARE ANALYSIS

Item No.	Item	Advantaged with Employees	Disadvantaged with Employees	Advantaged with Disadvantaged
1.	Typewriting is a requirement for getting a job in an office.	36.49**	33.44**	.19
6.	A person can get a job in an office without a high school diploma.	21.58**	34.53**	2.63
11.	Office workers frequently must return to school to learn about new equipment and office procedures.	19.10**	28.85**	3.05
16.	People who work in offices wear expensive clothes.	38.66**	43.63**	2.20
21.	Most office jobs today require a shorthand skill of at least 100 words per minute.	218.93**	235.67**	2.80
26.	Being overweight or extremely underweight does not limit your chances of obtaining an office job.	11.87**	9.73**	.63
31.	If you worked in an office, you would not have to take a bath every day.	.01	2.91	3.80
36.	Most office workers must know how to file.	34.99**	33.53**	2.17
41.	Office workers must know bookkeeping to get a job.	192.85**	210.55**	.80
46.	You cannot expect to get an office job with a large company right after you finish high school.	98.12**	93.06**	.85

Note: Two degrees of freedom on all tables unless otherwise specified.
**Significant at .01 level of confidence.

being a requirement for getting a job in an office. A higher percentage of the advantaged students perceived typewriting as a requirement for getting a job in an office than did the office employees. The responses of the two groups also differed on whether a person can get a job in an office without a high school diploma. A higher percentage of the office employees indicated a person can get a job in an office without a high school diploma than did the advantaged students. On the item stating that office workers frequently must return to school to learn about new equipment and office procedures, a higher percentage of the students thought this to be true than did the office employees. The difference in responses to the item regarding people who work in offices wearing expensive clothes was due to the higher percentage of the office workers indicating that office workers do not wear expensive clothes in the office. The difference in the perceptions of the students and office workers on the item pertaining to most office jobs today requiring a shorthand skill was attributed to a higher percentage of the office workers marking the statement "false," while a large number of the students did not know whether this was an office job requirement. The item stating that one's being overweight or extremely underweight does not limit her chances of obtaining an office job was marked "true" by students a higher percentage of the time than by the office workers, who tended to mark the item "false." A highly significant difference was noted in the differences of the two groups on the statement pertaining to office workers' having to know how to file. The students marked the statement "true" a higher percentage of the time than did the office employees. The two groups differed significantly on the item pertaining to office workers' having to know bookkeeping to get a job. A higher percentage of the office employees indicated that office workers did not have to know bookkeeping to get a job than did the advantaged students. Responses of the advantaged students differed with the responses of office workers on the item stating that one cannot expect to get an office job with a large company right after she finishes high school. A high percentage of the students indicated they thought this statement to be true; whereas, the responses of the office employees indicated a person can expect to get such a job right after she finishes high school.

When the responses of disadvantaged students were compared with the responses of office employees, the two groups differed at the .01 level of significance on nine of the ten items relating to office job prerequisites. The responses of the two groups did not differ significantly on the item which stated that if a person worked in an office, she would not have to take a bath every day.

The disadvantaged students indicated that typewriting was a requirement for getting a job in an office a higher percentage of the time than did the office worker. The two groups differed significantly on the item stating that a person can get a job in an office without a high school diploma. The disadvantaged students indicated this statement was true a higher percentage of the time than did the office employees. The responses of the two groups differed on the item pertaining to office workers' frequently having to return to school to learn about new equipment and office procedures. A high percentage of the students marked the item "don't know"; whereas, a higher percentage of the office employees indicated they did not have to return to school frequently to learn about new equipment and office procedures.

The difference between groups noted in their responses to the item relating to people who work in offices wearing expensive clothes was a result of disadvantaged students' marking a high percentage of "don't know" responses to the item while the office employees indicated that people who work in offices do not wear expensive clothes. There was a significant difference in the perceptions of the two groups on the statement pertaining to most office jobs today requiring a shorthand skill of at least 100 words per minute. A higher percentage of the office employees than disadvantaged students indicated that most office jobs today do not require a shorthand skill of 100 words per minute. A high percentage of the disadvantaged students did not know whether offices required a shorthand skill of 100 words per minute. A higher percentage of the disadvantaged students indicated that being overweight or extremely underweight does not limit a person's chances of obtaining an office job than did the office employees. On the statement pertaining to most office workers' having to know how to file, a higher percentage of the students than the office employees believed that office workers did need to know how to file. When the two groups were compared, they differed significantly on their perceptions of office workers' having to know bookkeeping. A higher percentage of the office employees than disadvantaged students indicated that office workers did not have to know bookkeeping to get a job. A higher percentage of the office workers than disadvantaged students indicated that one could expect to get a job in an office of a large company right after she finishes high school.

There were no significant differences between the responses of the advantaged students and the responses of the disadvantaged students in the category of office job prerequisites.

Table 2 contains the results of the chi-square analyses of the comparisons of advantaged and disadvantaged students' perceptions of rewards of the office job with the perceptions of office employees. A third comparison was made between the responses of advantaged and disadvantaged students. Based on a comparison between the disadvantaged students and the office employees, a significant difference was noted on nine of the ten items relating to rewards of the office job.

The responses of the two groups did not differ significantly on the item pertaining to office workers' being more socially accepted than workers who get their clothes dirty or greasy. A comparison between the responses of the two groups on the item pertaining to office workers' being more likely to have steady work than factory workers resulted in a difference significant at the .05 level. The responses of the two groups differed significantly at the .01 level on the remaining eight items in the category of rewards of the job. On the item stating that office workers do not make as much money as factory workers, a higher percentage of the advantaged students than the office employees believed that office workers do make as much money as factory workers. The responses of the two groups differed on

TABLE 2. ADVANTAGED AND DISADVANTAGED STUDENTS' AND OFFICE EMPLOYEES' PERCEPTIONS OF REWARDS OF THE OFFICE JOB BASED ON CHI-SQUARE ANALYSIS

Item No.	Item	Advantaged with Employees	Disadvantaged with Employees	Advantaged with Disadvantaged
2.	Office workers do not make as much money as factory workers.	49.40**	50.05**	6.53*
7.	Office workers are more socially accepted than workers who get their clothes dirty or greasy.	2.69	4.70	2.97
12.	If you worked in an office, you could make as much money as your father, mother, or guardian.	61.93**	45.78**	1.47
17.	Some companies pay for office worker's health and life insurance.	69.19**	83.22**	1.11
22.	Office workers are respected more than other workers in the same business or industry.	13.08**	8.99*	.60
27.	Office workers are usually invited to more parties and social functions than other workers.	42.97**	25.85**	5.10
32.	Women office workers usually make the same salary as men office workers.	147.79**	197.98**	20.30**
37.	Office workers have a better chance for advancement than other workers.	27.13**	19.55**	2.74
42.	Office workers work fewer hours than others in business and industry.	82.25**	88.10**	3.51
47.	Office workers are more likely to have steady work than factory workers.	6.89*	15.60**	3.82

*Significant at .05 level of confidence.
**Significant at .01 level of confidence.

on the item stating that if one worked in an office, she could make as much money as her father, mother, or guardian. A higher percentage of the office employees indicated that a person cannot make as much money in an office as her father, mother, or guardian. The two groups differed in their perceptions on the item pertaining to some companies' paying for office workers' health and life insurance. A higher percentage of the office employees indicated that some companies do pay for employees' health and life insurance than did the advantaged students. The advantaged students and the office employees differed in their responses to the item stating that office workers are respected more than other workers in the same business or industry. A higher percentage of the office workers indicated that this was a true statement than did the advantaged students, although a large number of the students marked the item "don't know." The two groups differed on the statement pertaining to office workers' usually being invited to more parties and social functions than other workers. A higher percentage of the office employees thought that office workers were _not_ usually invited to more parties and social functions than other workers. However, a high percentage of the advantaged students marked the item "don't know." The two groups differed significantly on the item relating to women office workers' usually making the same salary as men office workers. A higher percentage of the advantaged students than the office employees thought that women office workers usually made the same salary as men office workers. The responses of the two groups differed on the item pertaining to office workers' having a better chance for advancement than other workers. A higher percentage of the office employees marked the item "false" than did the students, who tended to mark the statement "don't know." The responses of the two groups differed on the item stating that office workers work fewer hours than others in business and industry. A high percentage of the students did not know whether office workers work fewer hours than others in business and industry. A higher percentage of the employees marked the item "false" than did the students. The office employees and the advantaged students differed at the .05 level of significance on the item regarding office workers' being more likely to have steady work than factory workers. A higher percentage of the office employees than students did not believe that office workers were more likely to have steady work than factory workers.

When the responses of disadvantaged students were compared with the responses of office employees, the two groups differed at the .01 level of significance on eight of the ten items in the category of rewards of the office job. The difference between the two groups' responses on the item indicating office workers are respected more than other workers in the same business or industry was significant at the .05 level. There was no significant difference between the responses of the two groups on the item stating that office workers are more socially accepted than workers who get their clothes dirty or greasy.

On the item stating that office workers do not make as much money as factory workers, the office employees indicated that this was a true statement a higher percentage of the time than did the disadvantaged students. The difference in the responses to the item stating that if a person worked in an office, she could make as much money as her father, mother, or guardian was due to a higher percentage of office workers than disadvantaged students' marking this item "false." The two groups differed in their responses on the statement pertaining to some companies' paying for office workers' health and life insurance in that a higher percentage of the office employees marked this statement "true" than did the disadvantaged students, who marked the item "don't know" a high percentage of the time.

The responses of office employees and the disadvantaged students differed at the .05 level of significance on the item stating that office workers are respected more than other workers in the same business or industry. Although a high percentage of the students did not know whether this statement was true or false, a higher percentage of employees than students indicated that office workers are not respected more than other workers in the same business or industry. The responses of the two groups differed on the item pertaining to office workers' usually being invited to more parties and social functions than other workers. A high percentage of the disadvantaged students did not know whether the item was true or false, even though a higher percentage of office employees than disadvantaged students marked the item "false." On the item relating to women office workers' usually making the same salary as men office workers, a higher percentage of office employees than disadvantaged students indicated that women office workers do not usually make the same salary as men office workers. A high percentage of the students did not know whether women made the same salaries as men in an office. On the item relating to office workers' having a better chance for advancement than other workers, the disadvantaged students marked the statement with a "don't know" response a high percentage of the time. Office employees indicated that office workers do not have a better chance for advancement than other workers a higher percentage of the time than did the disadvantaged students. The difference in the responses of the two groups on the item referring to whether office workers work fewer hours than others in business and industry resulted from the office employees' marking the statement "false" a higher percentage of the time than did the disadvantaged students. Disadvantaged students and the office employees differed in their responses on the item regarding office workers' being more likely to have steady work than factory workers. A higher percentage of office employees than disadvantaged students did not believe office workers were more likely to have steady work. A high percentage of the disadvantaged students marked the item "don't know."

When the advantaged students were compared with the disadvantaged students, the responses of the two groups differed at the .05 level of significance on the item pertaining to office workers' not making as much money as factory workers. A higher percentage of disadvantaged than advantaged students indicated that office workers do make as much money as factory workers. Both groups marked the item "don't know" a high percentage of the time. The responses of the two groups of students differed at the .01 level of significance on the item pertaining to women office workers' usually making the same salary as men office workers. A higher percentage of disadvantaged than advantaged students indicated that women office workers usually do make the same salary as men office workers. Both groups of students marked the item "don't know" a high percentage of the time. The disadvantaged and advantaged students did not differ significantly in their perceptions of rewards of the office job on any of the other eight items in this category.

Table 3 contains the results of the chi-square analyses of the comparisons of advantaged and disadvantaged students' perceptions of personal relationships in the office with the perceptions of office employees. A third comparison was made between the responses of advantaged and disadvantaged students. When the responses of advantaged students were compared with the responses of office employees, differences significant at the .01 level were obtained on eight of the ten items. The office employees and the advantaged students differed at the .05 level of significance in their responses on the items relating to their being able to accept criticism from an office supervisor when he was angry and the city's not being a healthy place in which to live and do office work.

The advantaged students and the office employees differed in their responses on the statement pertaining to their being disturbed if an office supervisor checked their work closely. A higher percentage of the office employees than advantaged students indicated that it would not disturb them to have their office supervisor check their work closely. The two groups differed at the .05 level of significance on the item referring to their acceptance of criticism from their office supervisor when he was angry. A higher percentage of office employees than advantaged students indicated that they could not accept criticism from their office supervisor when he was angry. The

TABLE 3. ADVANTAGED AND DISADVANTAGED STUDENTS' AND OFFICE EMPLOYEES' PERCEPTIONS OF PERSONAL RELATIONSHIPS IN THE OFFICE BASED ON CHI-SQUARE ANALYSIS.

Item No.	Item	Advantaged with Employees	Disadvantaged with Employees	Advantaged with Disadvantaged
3.	It would disturb you to have your office supervisor check your work closely.	37.55**	30.09**	.59
8.	You could not accept criticism from your office supervisor when he is angry.	8.03*	7.40*	1.18
13.	The city is not a healthy place to live and do office work.	8.44*	9.43**	4.18
18.	Office workers enjoy working in offices in large cities.	11.39**	5.98	2.64
23.	If your office supervisor asked you for a date, you should accept.	116.73**	93.93**	2.02
28.	If you have a personal problem, you would talk it over with your supervisor in an office.	26.79**	11.39**	8.34*
33.	An office worker will invite the boss to eat lunch with her.	47.15**	34.40**	1.36
38.	Women do not make good office supervisors.	40.19**	38.40**	.47
43.	Office workers who are not friendly with their supervisors will not get promotions.	26.63**	22.74**	.26
48.	In offices where customers appear daily, it should be the attitude of the office workers that the customer is always right.	29.58**	61.53**	8.41

*Significant at .05 level of confidence.
**Significant at .01 level of confidence.

responses of the two groups differed at the .05 level of significance on the item stating that the city is not a healthy place in which to live and do office work. A higher percentage of office workers than advantaged students indicated that the city was a healthy place in which to live and do office work. The difference between groups in their responses to the item relating to office workers' enjoying working in offices in large cities was attributed to a higher percentage of office employees than advantaged students indicating that office workers do enjoy working in offices in large cities. However, a large percentage of the advantaged students marked the item "don't know." On the item stating that if one's office supervisor asked her for a date she should accept, the students marked the item "don't know" a high percentage of the time while a higher percentage of office workers than students indicated this to be a false statement. A higher percentage of the office employees than advantaged students indicated they would not talk personal problems over with their supervisor in an office. This resulted in a significant difference between the groups' responses on the item. The two groups differed in their responses on the statement regarding an office worker's inviting the boss to eat lunch with her. A higher percentage of the office employees indicated that they would not invite the boss to eat lunch with them than did the advantaged students. The two groups differed in their responses on the item stating that women do not make good office supervisors. A higher percentage of the employees indicated that women do not make good office supervisors than did the advantaged students, although a high percentage of the students did not know whether the statement was true or false. The two groups differed on the item regarding office workers who are not friendly with their supervisors not getting promotions. A higher percent of the office employees indicated that this was a true statement than did the advantaged students. The advantaged students marked the item "don't know" a high percentage of the time. The responses of the advantaged students and the responses of office employees differed significantly on the item stating that in offices where customers appear daily it should be the attitude of the office workers that the customer is always right. A higher percentage of office employees than advantaged students indicated that the correct response to this item was true.

When the responses of the disadvantaged students were compared with the responses of office employees, the two groups differed at the .01 level of significance on eight of the ten items relating to personal relationships in the office. The two groups did not differ significantly on the item relating to office workers' enjoying work in offices in large cities. The two groups differed at the .05 level of significance on the item stating that they could not accept criticism from their office supervisor when he was angry.

The disadvantaged students and the office employees differed in their responses on the item stating that it would disturb them to have their office supervisor check their work closely. A higher percentage of the office employees than the disadvantaged students indicated that they would not be disturbed if their work was checked closely by an office supervisor. The disadvantaged students and the office employees differed at the .05 level of significance on their responses to the statement relating to not accepting criticism from an office supervisor when he was angry. A higher percentage of the office employees than the disadvantaged students reported that they could not accept criticism from their office supervisor when he was angry. On the item pertaining to the city's not being a healthy place in which to live and do office work, a higher percentage of the office employees than the disadvantaged students indicated this statement was false. The disadvantaged students and the office employees differed in their response to the item stating that if one's office supervisor asked her for a date she should accept. A higher percentage of the office employees than the disadvantaged students indicated that a person did not have to accept a date when asked by an office supervisor. The disadvantaged students frequently indicated that they did not know whether the statement was true or false. The responses of the two groups differed on the statement relating to talking over personal problems with a supervisor in an office. A higher percentage of the office employees than the disadvantaged students reported that they would not talk personal problems over with their office supervisor. The difference in the responses of the two groups on the item relating to an office worker's inviting the boss to eat lunch with her was due to a higher percentage of the office employees than the disadvantaged students' indicating that they would not invite the boss to lunch with them. On the item stating that women do not make good office supervisors, the two groups differed as a result of a higher percentage of the office employees than the disadvantaged students reporting that women do not make good office supervisors. However, a high percentage of the disadvantaged students indicated that they did not know whether the statement was true or false. The responses of the two groups differed on the item stating that office workers who are not friendly with their supervisors will not get promotions. A higher percentage of the office employees indicated that the statement was false than did the disadvantaged students. A high percentage of the disadvantaged students marked the item "don't know." The two groups differed in their responses to the item stating that in offices where customers appear daily it should be the attitude of the office workers that the customer is always right. A higher percentage of the office employees than the disadvantaged students indicated that it should be the attitude of the office worker that the customer is always right.

When the responses of the advantaged students were compared with the responses of the disadvantaged students, the two groups differed at the .05 level of significance on the item pertaining to talking over a personal problem with an office supervisor. However, a high percentage of both groups indicated that they did not know whether they would talk a personal problem over with a supervisor. The advantaged and disadvantaged students did not differ on any of the other items in the category of personal relationships in the office.

Table 4 contains the results of the chi-square analyses of the comparisons of advantaged and disadvantaged students' perceptions of job expectations with the perceptions of office employees. A third comparison was made between the responses of advantaged and disadvantaged students. When the responses of the advantaged students were compared with the responses of office workers, the two groups differed

TABLE 4. ADVANTAGED AND DISADVANTAGED STUDENTS' AND OFFICE EMPLOYEES' PERCEPTIONS OF JOB EXPECTATIONS IN THE OFFICE BASED ON CHI-SQUARE ANALYSIS

Item No.	Item	Advantaged with Employees	Disadvantaged with Employees	Advantaged with Disadvantaged
4.	Job opportunities in office work are decreasing because of automation.	39.60**	66.36**	7.80*
9.	Most office workers use a lot of make-up, perfume, and deodorant.	59.60**	75.64**	1.61
14.	You would accept someone correcting you if you used "it don't" instead of "it doesn't."	1.10	.41	.98
19.	Out-of-style clothes are all right in an office as long as they are clean.	29.10**	18.14**	10.03**
24.	You would not demand better pay if you had more education than your co-workers.	24.53**	8.51*	5.06
29.	You would not work in an office where you were required to join a union.	17.00**	26.76**	3.05
34.	It would be annoying to others if you had eaten onions and other highly spiced foods before going to the office.	15.24**	5.70	3.18
39.	It is just as important for an office worker to get along with others as it is to be efficient.	2.36	4.11	.31
44.	Office workers usually wear bright colored clothes to make the office more cheerful.	70.17**	37.68**	6.45*
49.	You would be expected to wear jewelry in the office.	50.81**	35.34**	3.51

*Significant at .05 level of confidence.
**Significant at .01 level of confidence.

at the .01 level of significance on eight of the ten items. The groups did not differ significantly on the items stating that a person would accept someone's correcting her if she used "it don't" instead of "it doesn't" and that it is just as important for an office worker to get along with others as it is to be efficient.

The advantaged students and the office employees differed in their responses on the statement relating to job opportunities in office work decreasing because of automation. A higher percentage of the office employees than the advantaged students indicated that they did not think that job opportunities in office work were decreasing because of automation. The two groups differed in their responses to the item relating to office workers' using a lot of make-up, perfume, and deodorant. A high percentage of the advantaged students marked the item "don't know," while a higher percentage of the office employees than the advantaged students marked the statement false. On the item stating, "Out-of-style clothes are all right in an office as long as they are clean," a higher percentage of the office employees than the advantaged students checked the statement "true." The two groups differed significantly on the statement regarding a person's demanding better pay if she had more education than her co-workers. A higher percentage of the office employees than the advantaged students reported that they would demand better pay if they had more education than their co-workers. The responses of the advantaged students and of the office employees differed on the statement relating to not working in an office where they were required to join a union. However, a high percentage of both of the groups marked "don't know" as their response to the statement. On the item stating that it would be annoying to others if a person had eaten onions and other highly spiced foods before going to the office, a higher percentage of advantaged students than office employees indicated this statement was true. On the item pertaining to wearing bright-colored clothes to make the office more cheerful, a higher percentage of the office employees than advantaged students reported that they do not usually wear bright-colored clothes to make the office more cheerful. A high percentage of the advantaged students did not know whether the statement was true or false. The advantaged students and the office employees differed in their responses on the item stating that one would be expected to wear jewelry in the office. A higher percentage of the office employees marked the statement "false" than did the advantaged students.

When the responses of the disadvantaged students were compared with the responses of office employees, the two groups differed at the .01 level of significance on the item stating that job opportunities in office work were decreasing because of automation. A higher percentage of the office employees than disadvantaged students thought that jobs in offices were not decreasing because of automation. The two groups differed at the .01 level of significance on their responses to the statement pertaining to most office workers' using a lot of make-up, perfume, and deodorant. A higher percentage of the office employees reported the statement to be false than did the disadvantaged students. However, a high percentage of the disadvantaged students did not know whether this statement was true or false. The responses of the two groups differed at the .01 level of significance on the statement pertaining to out-of-style clothes being all right in an office as long as they were clean. A higher percentage of the office employees than disadvantaged students indicated that out-of-style clothes were _not_ all right in the office.

The responses of the two groups differed at the .05 level of significance on the item stating that a person would not demand better pay if she had more education than her co-workers. A higher percentage of the office employees than the disadvantaged students indicated that they would demand better pay if they had more education than their co-workers. The disadvantaged students and the office employees differed at the .01 level of significance on the statement pertaining to working in an office where they were required to join a union. A higher percentage of the office employees than the disadvantaged students indicated that they would work in an office where they were required to join a union. The responses of the two groups differed at the .01 level of significance on the item related to wearing bright-colored clothes in an office to make it more cheerful. A higher percentage of the office employees than the disadvantaged students reported that office workers usually do _not_ wear bright colored clothes to make the office more cheerful. Responses of the disadvantaged students differed with the responses of office employees at the .01 level of significance on the item stating that one would be expected to wear jewelry in the office. A higher percentage of the office employees reported that a person would _not_ be expected to wear jewelry in the office than did the disadvantaged students. A high percentage of the disadvantaged students reported that they did not know whether the statement was true or false.

When the responses of advantaged students were compared with responses of disadvantaged students, the two groups differed at the .05 level of significance on the item stating that job opportunities in office work were decreasing because of automation. A higher percentage of the advantaged than disadvantaged students reported that office jobs were not decreasing because of automation. However, a high percentage of both groups of students marked the item "don't know." The two groups of students differed at the .01 level of significance on the statement pertaining to out-of-style clothes being all right in the office as long as they are clean. A higher percentage of the disadvantaged students reported the item as true than did the advantaged students. A high percentage of both groups indicated they did not know whether this statement was true or false. The advantaged and disadvantaged students differed at the .05 level of significance on the item relating to wearing bright-colored clothes to make the office more cheerful. A higher percentage of the disadvantaged than advantaged students reported that office workers do not usually wear bright-colored clothes to make the office more cheerful. Both groups of students had a high percentage of "don't know" responses to the item. The responses of advantaged and disadvantaged students did not differ significantly on any of the other items in the category of job expectations in the office.

Table 5 contains results of the chi-square analyses of the comparisons of advantaged and disadvantaged students' perceptions of discrimination in the office with the perceptions of office employees. A third comparison was made between the responses of advantaged and

TABLE 5. ADVANTAGED AND DISADVANTAGED STUDENTS' AND OFFICE EMPLOYEES' PERCEPTIONS OF DISCRIMINATION IN THE OFFICE BASED ON CHI-SQUARE ANALYSIS

Item No.	Item	Advantaged with Employees	Disadvantaged with Employees	Advantaged with Disadvantaged
5.	You would not avoid sitting next to someone from a minority group at work.	11.40**	4.18	6.03*
10.	You would not take orders from a person from a minority group at work.	19.42**	22.79**	3.01
15.	You would not share a ride with a person from a minority group while going to work in a private car.	19.78**	7.08*	11.23**
20.	You would not take a coffee break with someone from a minority group.	19.46**	25.72	.73
25.	If you accidentally left your money at home, you would ask someone from a minority group to lend you lunch money.	6.89*	5.22	.13
30.	Your religious beliefs are important in determining the kind of office in which you would work.	19.54**	13.60**	1.23
35.	A person's color might cause him to be looked down upon by fellow office workers.	5.99*	1.24	3.67
40.	A Negro, Indian, or Spanish-named supervisor would treat other office workers fairly.	14.59**	3.14	19.57**
45.	One's religion should not be important in determining what is demanded on the job.	23.04**	8.55*	9.98**
50.	Members of some minority groups cannot get and keep a job in an office.	19.66**	10.57**	3.85

*Significant at .05 level of confidence.
**Significant at .01 level of confidence.

disadvantaged students. When the responses of the advantaged students were compared with the responses of employees, the two groups differed at the .01 level of significance on eight of the ten items. The two groups differed at the .05 level of significance on the items: "If you accidentally left your money at home, you would ask someone from a minority group to lend you lunch money"; and "A person's color might cause him to be looked down upon by fellow office workers."

When the advantaged students were compared with the office employees, their responses differed on the item pertaining to sitting next to someone from a minority group at work. A higher percentage of the office employees than the advantaged students reported that they would not avoid sitting next to someone from a minority group at work. The two groups differed in their responses to the item relating to taking orders from a person from a minority group at work. A higher percentage of the office employees than advantaged students indicated that they would take orders from a person from a minority group at work. When the advantaged students' responses were compared with the office employees' responses on the item pertaining to sharing a ride with a person from a minority group while going to work in a private car, a higher percentage of the office employees marked the statement "false" than did the advantaged students. The two groups differed in their responses to the item relating to taking a coffee break with someone from a minority group. A higher percentage of the office employees reported that they would take a coffee break with someone from a minority group than did the advantaged students. The responses of advantaged students and the responses of the office employees differed at the .05 level of significance on the item referring to asking someone from a minority group to lend her lunch money if she accidentally left her money at home. A higher percentage of the office employees than advantaged students indicated that they would ask someone from a minority group to lend them lunch money if they accidentally left their money at home. The two groups differed in their responses to the item pertaining to religious beliefs' being important in determining the kind of office in which they would work. A higher percentage of the office employees than advantaged students reported that their religious beliefs would not be important in determining the kind of office in which they would work. The advantaged students and the office employees differed at the .05 level of significance in their responses to the item regarding a person's color causing him to be looked down upon by his fellow office workers. A higher percentage of the office employees than the advantaged students reported that a person's color would not cause him to be looked down upon by fellow office workers. The two groups differed in their responses to the item pertaining to a Negro, Indian, or Spanish-named supervisor treating other office workers fairly. A higher percentage of the office employees than the advantaged students reported that a Negro, Indian, or Spanish-named supervisor would treat other office workers fairly. A high percentage of the advantaged students marked the item "don't know." The advantaged students and the office employees differed in their responses to the item stating that one's religion should not be important in determining what was demanded on the job. A higher percentage of the office employees marked the item "true" than did the advantaged students. The two groups differed in their responses to the item pertaining to members of some minority groups not being able to get and keep a job in an office. A higher percentage of the office employees than the advantaged students reported that members of some minority groups can get and keep an office job. A high percent of the advantaged students indicated that they did not know whether this statement was true or false.

When the responses of disadvantaged students were compared with the responses of office employees on their perceptions of discrimination in the office, there was no significant difference between the two groups on the item stating that a person would not avoid sitting next to someone from a minority group at work. The disadvantaged students and the office employees differed at the .01 level of significance on the item pertaining to taking orders from a person from a minority group at work. A higher percentage of office employees than disadvantaged students reported that they would take orders from a person from a minority group at work. The two groups differed at the .05 level of significance on the item referring to sharing a ride with a person from a minority group while going to work in a private car. A higher percentage of disadvantaged students than office employees reported that they would not share a ride with a person from a minority group while going to work in a private car. The disadvantaged students and office employees differed at the .01 level of significance in their responses to the statement regarding not taking a coffee break with someone from a minority group. A

A higher percentage of disadvantaged students than office employees reported that they would not take a coffee break with someone from a minority group. The disadvantaged students and the office employees did not differ significantly in their responses to the item referring to asking someone from a minority group to lend her lunch money if she accidentally left her money at home. The two groups differed at the .01 level of significance on the statement regarding their religious beliefs' being important in determining the kind of office in which they would work. The disadvantaged students and the office employees did not differ significantly in their responses to the two items pertaining to a person's color causing him to be looked down upon by fellow office workers and a Negro, Indian, or Spanish-named supervisor treating office workers fairly. The two groups differed at the .05 level of significance in their responses to the statement relating to one's religion not being important in determining what is demanded on the job. A higher percentage of the office employees reported that one's religion should not be important in determining what is demanded on the job than did the disadvantaged students. The two groups differed in their responses at the .01 level of significance on the item regarding members of some minority groups not being able to get and keep a job in an office. A higher percentage of the office employees reported this to be a false statement than did the disadvantaged students. However, a high percentage of the disadvantaged students marked the item "don't know."

When the advantaged students were compared with the disadvantaged students to determine differences in their perceptions of discrimination in office work, the two groups differed at the .01 level of significance on the item stating that a person would not avoid sitting next to someone from a minority group at work. A higher percentage of the disadvantaged than advantaged students reported that they would not avoid sitting next to someone from a minority group at work. The two groups differed at the .01 level of significance on their responses to the item pertaining to sharing a ride with a person from a minority group while going to work in a private car. A higher percentage of the disadvantaged than advantaged students indicated that they would share a ride with a person from a minority group while going to work in a private car. The two groups differed at the .01 level of significance in their responses to the item relating to a Negro, Indian, or Spanish-named supervisor treating other office workers fairly. A higher percentage of the disadvantaged than advantaged students reported that they thought a Negro, Indian, or Spanish-named supervisor would treat other office workers fairly. The two groups differed at the .01 level of significance on the item stating that one's religion should not be important in determining what is demanded on the job. A higher percentage of the disadvantaged students marked the statement "false" than did the advantaged students. The advantaged students did not differ significantly with the disadvantaged students on any of the remaining items in the category of discrimination in the office.

Table 6 contains an analysis of variance test of significance between the mean scores of advantaged students and office employees in their perceptions of office work. The advantaged students differed statistically at the .01 level of significance with the office employees in all areas. The more closely the mean scores of the advantaged students are to the mean scores of the office employees, the more closely the two groups were in agreement in their perceptions of office work.

TABLE 6. ANALYSIS OF VARIANCE TEST OF SIGNIFICANCE BETWEEN MEAN SCORES OF ADVANTAGED STUDENTS AND OFFICE EMPLOYEES IN THEIR PERCEPTIONS OF OFFICE WORK

	Advantaged Students (N=471)		Office Employees (N=326)		
Category	Mean	S.D.	Mean	S.D.	F 1,795
Job Prerequisites	23.33	2.86	25.46	2.63	114.446**
Rewards of the Job	20.38	4.04	23.01	3.39	92.917**
Personal Relationships	22.72	3.34	24.83	3.07	82.307**
Job Expectations	23.30	3.04	25.60	2.77	118.393**
Discrimination	23.79	3.65	25.38	3.20	40.418**

**Significant at .01 level.

Table 7 contains an analysis of variance test of significance between the mean scores of disadvantaged students and office employees in their perceptions of office work. The disadvantaged students differed statistically at the .01 level of significance with the office employees in all areas. The more closely the mean scores of the disadvantaged students are to the mean scores of the office employees, the more closely the two groups were in agreement in their perceptions of office work.

Table 8 contains an analysis of variance test of significance of perceptions of office work based on a comparison between advantaged and disadvantaged students. There were no statistical differences in any of the categories when these two groups were compared. The higher the mean score of the advantaged and disadvantaged students, the more closely these groups are in agreement with office employees.

TABLE 7. ANALYSIS OF VARIANCE TEST OF SIGNIFICANCE BETWEEN MEAN SCORES OF DISADVANTAGED STUDENTS AND OFFICE EMPLOYEES IN THEIR PERCEPTIONS OF OFFICE WORK

	Disadvantaged Students (N=462)		Office Employees (N=326)		
Category	Mean	S.D.	Mean	S.D.	F 1,786
Job Prerequisites	23.23	3.03	25.46	2.63	116.133**
Rewards of the Job	20.30	4.23	23.01	3.39	91.753**
Personal Relationships	22.79	3.38	24.83	3.07	75.668**
Job Expectations	23.58	3.04	25.60	2.77	91.221**
Discrimination	24.08	3.67	25.38	3.20	26.401**

**Significant at .01 level.

TABLE 8. ANALYSIS OF VARIANCE TEST OF SIGNIFICANCE OF PERCEPTIONS OF OFFICE WORK BASED ON A COMPARISON BETWEEN ADVANTAGED AND DISADVANTAGED STUDENTS

	Advantaged (N=471)		Disadvantaged (N=464)		
Category	Mean	S.D.	Mean	S.D.	F 1,933
Job Prerequisites	23.33	2.86	23.22	3.02	0.314
Rewards of the Job	20.38	4.04	20.30	4.22	0.082
Personal Relationships	22.72	3.34	22.77	3.38	0.053
Job Expectations	23.30	3.04	23.58	3.04	1.882
Discrimination	23.79	3.65	24.08	3.67	1.440

It is significant to note that the chi-square item analysis shown in Tables 1 through 5 indicates that the advantaged and disadvantaged students differed with the office workers in their perceptions of most of the items in all categories. It is also significant to note that when the advantaged students were compared with the disadvantaged students there were relatively few items upon which they showed a significant difference in office perceptions. In the analysis of variance test of significance shown in Tables 6 and 7, highly significant differences were indicated on all the group comparisons of the advantaged and disadvantaged students with office workers. However, in Table 8 there were no significant differences noted when advantaged and disadvantaged students were compared.

Yes-No Comparisons of Interest in Doing Office Work

Tables 9 through 13 contain chi-square comparisons of advantaged and disadvantaged students' perceptions in relation to their interest in office work. Tables 14 and 15 contain an analysis of variance test of significance results when the advantaged and disadvantaged students were compared in relation to their interest in doing office work.

Table 9 contains students' perceptions of job prerequisites when compared by their interest in doing office work based on the chi-square analysis within and between groups of advantaged and disadvantaged students. When the advantaged students who were interested in doing office work were compared with the advantaged students who were not interested in doing office work, a difference significant at the .01 level was obtained in response to the statement about people who work in offices wearing expensive clothes. A higher percentage of the advantaged students not interested in doing office work marked this item "don't know" than did those advantaged students who were interested in doing office work. The two groups of advantaged students were in agreement on the remaining items relating to job prerequisites.

TABLE 9. ADVANTAGED AND DISADVANTAGED STUDENTS' PERCEPTIONS OF JOB PREREQUISITES IN RELATION TO INTEREST IN OFFICE WORK AS BASED ON CHI-SQUARE ANALYSIS

Item No.	Item	Yes-No Advantaged	Yes-No Disadvantaged	Yes Advantaged with Yes Disadvantaged	No-Advantaged with No Disadvantaged
1.	Typewriting is a requirement for getting a job in an office.	.45	3.44	.40	1.05
6.	A person can get a job in an office without a high school diploma.	.92	.76	2.67	.29
11.	Office workers frequently must return to school to learn about new equipment and office procedures.	1.68	5.67	1.11	7.12*
16.	People who work in offices wear expensive clothes.	10.01**	.03	1.69	2.69
21.	Most office jobs today require a shorthand skill of at least 100 words per minute.	2.95	2.40	2.59	1.05
26.	Being overweight or extremely underweight does not limit your chances of obtaining an office job.	1.93	.67	.12	2.45
31.	If you worked in an office, you would not have to take a bath every day.	.01	6.13*	3.46	5.28
36.	Most office workers must know how to file.	1.77	9.45**	.84	4.55
41.	Office workers must know bookkeeping to get a job.	1.62	2.75	2.79	1.36
46.	You cannot expect to get an office job with a large company right after you finish high school.	.91	2.65	.33	.85

*Significant at .05 level of confidence.
**Significant at .01 level of confidence.

The disadvantaged students who were interested in doing office work differed with the disadvantaged students who were not interested in doing office work at the .05 level of significance in their responses to the item pertaining to having to take a bath every day if a person worked in an office. A higher percentage of the students not interested in doing office work marked this item "false" than did those interested in doing office work. A comparison of the same two groups revealed a difference significant at the .01 level on the item relating to office workers having to know how to file. A higher percentage of the disadvantaged students who were not interested in doing office work thought that most office workers must know how to file, as compared to those disadvantaged students who were interested in doing office work thinking that the office worker did have to know how to file. The two groups of disadvantaged students were in agreement on the other eight items in the category of job prerequisites.

When the advantaged students who were interested in doing office work were compared with the disadvantaged students who were interested in doing office work, there were no significant differences in their responses to the statements in the category of office job prerequisites. The advantaged students who were not interested in doing office work differed at the .05 level of significance with the disadvantaged students who were not interested in doing office work on the item relating to office workers' having to return to school frequently for training on new equipment and office procedures. A higher percent of the advantaged students not interested in doing office work thought this to be a true statement than did the disadvantaged students. However, a large percentage of both advantaged students and disadvantaged students did not know whether to mark this item "true" or "false." There were no significant differences in the responses of these two groups on the remaining nine items in this category.

Table 10 contains comparisons of students' perceptions of rewards of the job in relation to their interest in doing office work based on the chi-square analysis within and between advantaged and disadvantaged groups. There were no significant differences based on the comparison between advantaged students who were interested in doing office work and advantaged students who were not interested in doing office work.

A comparison of the disadvantaged students interested in doing office work with the disadvantaged students not interested in doing office work revealed four significant differences. The two groups differed at the .05 level of significance on their responses to the item relating to office workers' making as much money as factory workers. A higher percentage of the disadvantaged students who were not interested in doing office work believed that office workers make as much money as factory workers than did the disadvantaged students who were interested in doing office work. The two groups differed at the .05 level of significance on their responses to the item which asked if they could make as much money as their father, mother, or guardian if they worked in an office. A greater percentage of the disadvantaged students who were interested in doing office work marked "don't know" as their response to this statement than did those disadvantaged students who were not interested in doing office

TABLE 10. ADVANTAGED AND DISADVANTAGED STUDENTS' PERCEPTIONS OF REWARDS OF THE JOB IN RELATION TO INTEREST IN OFFICE WORK AS BASED ON CHI-SQUARE ANALYSIS

Item No.	Item	Yes-No Advantaged	Yes-No Disadvantaged	Yes Advantaged with Yes Disadvantaged	No-Advantaged with No Disadvantaged
2.	Office workers do not make as much money as factory workers.	.85	6.06*	9.30**	2.60
7.	Office workers are more socially accepted than workers who get their clothes dirty or greasy.	.16	1.03	3.24	.50
12.	If you worked in an office, you could make as much money as your father, mother, or guardian.	1.21	6.75*	.01	8.52*
17.	Some companies pay for office worker's health and life insurance.	5.84	.44	2.75	.99
22.	Office workers are respected more than other workers in the same business or industry.	.56	.55	.59	.32
27.	Office workers are usually invited to more parties and social functions than other workers.	2.91	3.10	1.87	5.00
32.	Women office workers usually make the same salary as men office workers.	1.34	10.06**	18.10**	3.30
37.	Office workers have a better chance for advancement than other workers.	5.92	9.60**	2.64	.43
42.	Office workers work fewer hours than others in business and industry.	1.31	.63	4.42	.03
47.	Office workers are more likely to have steady work than factory workers.	4.77	.61	3.34	1.57

*Significant at .05 level of confidence.
**Significant at .01 level of confidence.

work. The two groups of disadvantaged students differed at the .01 level of significance based on their responses to the items regarding women office workers' usually making the same salary as men office workers, and on office workers working fewer hours than others in business and industry. For both items, the disadvantaged students who were not interested in doing office work responded with a higher percentage of "don't know" answers than did the disadvantaged students who were interested in doing office work. These two groups agreed on the other six items in the category of rewards of the job.

When the advantaged students who were interested in doing office work were compared with the disadvantaged students who were interested in doing office work, their responses differed at the .01 level of significance on the item about office workers not making as much money as factory workers and on the item relating to women office workers' usually making the same salary as men office workers. A higher percentage of the disadvantaged students who were interested in doing office work had marked "don't know" responses to the first above statement than did the advantaged students who were interested in doing office work. A higher percentage of the advantaged students interested in doing office work thought that women office workers usually make the same salary as men office workers than did the disadvantaged students interested in doing office work. The responses of the two groups of students interested in doing office work were in agreement on the remaining items concerning rewards of the job.

A difference significant at the .05 level was noted in the responses of advantaged students who were not interested in doing office work when they were compared with disadvantaged students who were not interested in doing office work based on the item which asked if they could make as much money as their father, mother, or guardian if they worked in an office. A larger percentage of the disadvantaged students who were not interested in doing office work did not believe the above statement as compared with the advantaged students who were not interested in doing office work. This was the only item relating to rewards of the job on which these two groups of students showed a significant difference.

Table 11 contains analyses of students' perceptions of personal relationships in the office in relation to their interest in doing office work based on the chi-square analysis within and between advantaged and disadvantaged groups. The advantaged students who were interested in doing office work differed with the advantaged students who were not interested in doing office work at the .01 level of significance on the item which stated that it would be disturbing to have the office supervisor check one's work closely. A higher percentage of the students who were interested in doing office work did not feel that close supervision would bother them than did the students who were not interested in doing office work. The two groups of advantaged students differed at the .05 level of significance on their perceptions of whether the city was a healthy place in which to live and do office work. A higher percentage of the students who were interested in doing office work felt that the city was a healthy place in which to live and do office work than did the advantaged students who were not interested in doing office work. These two

TABLE 11. ADVANTAGED AND DISADVANTAGED STUDENTS' PERCEPTIONS OF PERSONAL RELATIONSHIPS IN RELATION TO INTEREST IN OFFICE WORK BASED ON CHI-SQUARE ANALYSIS

Item No.	Item	Yes-No Advantaged	Yes-No Disadvantaged	Yes Advantaged with Yes Disadvantaged	No-Advantaged with No Disadvantaged
3.	It would disturb you to have your office supervisor check your work closely.	15.32**	1.40	.98	4.53
8.	You could not accept criticism from your office supervisor when he is angry.	2.84	2.66	2.05	1.03
13.	The city is not a healthy place to live and do office work.	8.07*	1.49	.93	1.84
18.	Office workers enjoy working in offices in large cities.	4.20	.38	3.15	.59
23.	If your office supervisor asked you for a date, you should accept.	.29	.47	1.20	.50
28.	If you have a personal problem, you would talk it over with your supervisor in an office.	.99	2.78	11.25**	.14
33.	An office worker will invite the boss to eat lunch with her.	4.38	4.29	.56	3.13
38.	Women do not make good office supervisors.	2.43	1.08	.01	1.73
43.	Office workers who are not friendly with their supervisors will not get promotions.	1.60	1.63	.83	1.46
48.	In offices where customers appear daily, it should be the attitude of the office workers that the customer is always right.	4.39	3.86	15.07**	1.68

*Significant at .05 level of confidence.
**Significant at .01 level of confidence.

groups of students were in agreement on the other eight items relating to personal relationships. There were no significant differences in the perceptions of the disadvantaged students who were interested in doing office work compared with the disadvantaged students who were not interested in doing office work based on their responses to the items in the personal relationships category.

When the advantaged students who were interested in doing office work were compared with the disadvantaged students who were interested in doing office work, they differed at the .01 level of significance on the items relating to talking personal problems over with the office supervisor and the attitude of the office worker that the customer is always right. A higher percentage of the disadvantaged students interested in doing office work thought that they would talk their personal problems over with their office supervisor than did the advantaged students interested in doing office work. However, a higher percentage of the advantaged students interested in doing office work felt that it should be the attitude of the office worker that the customer is always right than did the disadvantaged students who were interested in doing office work. The two groups of advantaged and disadvantaged students were in agreement on the remaining eight items in the category of personal relationships in the office. There were no significant differences in the perceptions of the advantaged students not interested in doing office work as compared with the disadvantaged students not interested in doing office work, based on their responses to the items in the personal relationships category.

Table 12 indicates the results of the analyses of students' perceptions of job expectations in the office in relation to their interest in doing office work based on the chi-square analysis within and between advantaged and disadvantaged groups. When the advantaged students who were interested in doing office work were compared with the advantaged students not interested in doing office work, their responses differed at the .01 level of significance on the statement about job opportunities in office work decreasing because of automation. A higher percentage of the advantaged students not interested in doing office work indicated a "don't know" response to this statement than did the advantaged students who were interested in doing office work. The same two groups differed at the .01 level of significance on their responses to the statement relating to office workers' using a lot of make-up, perfume, and deodorant. Students not interested in doing office work marked the statement "don't know" a higher percentage of the time than did those students who were interested in doing office work. A difference at the .01 level of significance was noted in the comparison of the responses of the groups to the item about demanding better pay if a person had more education than her co-workers. The advantaged students interested in doing office work had a higher percentage of responses indicating that they would demand better pay if they had more education than their co-workers than did those advantaged students who were not interested in doing office work. The two groups of advantaged students differed at the .01 level of significance in their responses as to whether they would work in an office where they were required to join

TABLE 12. ADVANTAGED AND DISADVANTAGED STUDENTS' PERCEPTIONS OF JOB EXPECTATIONS IN RELATION TO INTEREST IN OFFICE WORK BASED ON CHI-SQUARE ANALYSIS

Item No.	Item	Yes-No Advantaged	Yes-No Disadvantaged	Yes Advantaged with Yes Disadvantaged	No-Advantaged with No Disadvantaged
4.	Job opportunities in office work are decreasing because of automation.	11.55**	4.54	12.81**	1.87
9.	Most office workers use a lot of make-up, perfume, and deodorant.	9.83**	1.60	5.54	1.32
14.	You would accept someone correcting you if you used "it don't" instead of "it doesn't."	5.50	.54	2.81	.34
19.	Out-of-style clothes are all right in an office as long as they are clean.	.48	1.07	8.15*	1.12
24.	You would not demand better pay if you had more education than your co-workers.	14.78**	12.52**	14.31**	5.30
29.	You would not work in an office where you were required to join a union.	9.83**	5.27	1.79	.30
34.	It would be annoying to others if you had eaten onions and other highly spiced foods before going to the office.	7.58*	4.39	4.91	4.48
39.	It is just as important for an office worker to get along with others as it is to be efficient.	3.83	.40	1.73	1.39
44.	Office workers usually wear bright colored clothes to make the office more cheerful.	.50	3.89	6.18*	1.28
49.	You would be expected to wear jewelry in the office.	.17	.46	1.93	2.30

*Significant at .05 level of confidence.
**Significant at .01 level of confidence.

a union. A higher percentage of the students interested in doing office work indicated that they would not work in an office where they were required to join a union than did the advantaged students who were not interested in doing office work. The responses of the two groups of advantaged students differed at the .05 level of significance on whether it would be annoying to others if a person had eaten onions and other highly spiced foods before going to the office. A higher percentage of the advantaged students interested in doing office work believed this to be a true statement than did the advantaged students who were not interested in doing office work. The two groups were in agreement on the remaining five items in the category of job expectations.

A comparison of the responses of disadvantaged students interested in doing office work with the responses of disadvantaged students not interested in doing office work showed a significant difference at the .01 level on the item relating to demanding better pay if a person had more education than her co-workers. The disadvantaged students not interested in doing office work marked a "don't know" response to this statement a higher percentage of the time than did those disadvantaged students interested in doing office work. The two groups of disadvantaged students were in agreement on the other nine items in the category of job expectations in the office.

When the advantaged students interested in doing office work were compared with the disadvantaged students interested in doing office work, they differed at the .01 level of significance in their responses on the item relating to job opportunities decreasing in the office because of automation. A higher percentage of the disadvantaged students marked this item "don't know" than did the advantaged students. The two groups differed at the .01 level of significance in their responses on the item about demanding better pay if they had more education than their co-workers. A higher percentage of the disadvantaged students interested in doing office work would not demand better pay than their co-workers with less education than would the advantaged students interested in doing office work. These two groups of students interested in doing office work differed at the .05 level of significance on their perception of out-of-style clothes being all right in an office as long as they were clean. A higher percentage of the disadvantaged students thought that out-of-style clothes were all right in an office as long as they were clean than did the advantaged students who were interested in doing office work. The same two groups differed at the .05 level of significance in their responses on the item relating to office workers' usually wearing bright-colored clothes to make the office more cheerful. A higher percentage of the disadvantaged students thought this statement to be false than did the advantaged students. The advantaged students interested in doing office work were in agreement with the disadvantaged students interested in doing office work on the remaining six items in the category of job expectations in the office. There were not significant differences in the perceptions of the advantaged students not interested in doing office work when compared with the disadvantaged students not interested in doing office work, based on the ten items in the category of job expectations.

Table 13 contains students' perceptions of discrimination in the office in relation to their interest in doing office work based on the chi-square analysis within and between advantaged and disadvantaged groups. When the responses of advantaged students who were interested in doing office work were compared with the responses of the advantaged students who were not interested in doing office work, the two groups differed at the .05 level of significance on the item relating to sitting next to someone from a minority group at work. A higher percentage of the advantaged students who were interested in doing office work indicated that they would not avoid sitting next to someone from a minority group at work than did the advantaged students who were not interested in doing office work. The two groups of advantaged students were in agreement on their perceptions of discrimination in office work on the remaining nine items in the category.

A comparison of the disadvantaged students who were interested in doing office work with the disadvantaged students who were not interested in doing office work revealed a difference significant at the .05 level based on their responses to the item about sharing a ride with a person from a minority group while riding to work in a private car. A higher percentage of the disadvantaged students not interested in doing office work indicated they would share a ride with a person from a minority group while going to work in a private car than did the disadvantaged students. There were no significant differences in perceptions of the two disadvantaged groups on the other nine items in the discrimination category.

TABLE 13. ADVANTAGED AND DISADVANTAGED STUDENTS' PERCEPTIONS OF DISCRIMINATION IN RELATION TO INTEREST IN OFFICE WORK BASED ON CHI-SQUARE ANALYSIS

Item No.	Item	Yes-No Advantaged	Yes-No Disadvantaged	Yes Advantaged with Yes Disadvantaged	No-Advantaged with No Disadvantaged
5.	You would not avoid sitting next to someone from a minority group at work.	7.45*	2.28	3.85	7.30*
10.	You would not take orders from a person from a minority group at work.	2.18	.78	5.54	.36
15.	You would not share a ride with a person from a minority group while going to work in a private car.	.19	7.08*	7.93*	5.45
20.	You would not take a coffee break with someone from a minority group.	2.36	5.05	4.02	2.54
25.	If you accidentally left your money at home, you would ask someone from a minority group to lend you lunch money.	.26	3.86	.33	2.02
30.	Your religious beliefs are important in determining the kind of office in which you would work.	1.48	1.21	.52	.06
35.	A person's color might cause him to be looked down upon by fellow office workers.	3.50	5.08	1.62	2.85
40.	A Negro, Indian, or Spanish-named supervisor would treat other office workers fairly.	.61	.74	15.28**	3.88
45.	One's religion should not be important in determining what is demanded on the job.	2.23	.39	6.95*	2.35
50.	Members of some minority groups cannot get and keep a job in an office.	2.93	.58	1.82	1.80

*Significant at .05 level of confidence.
**Significant at .01 level of confidence.

When the advantaged students who were interested in doing office work were compared with the disadvantaged students who were interested in doing office work, the two groups differed at the .05 level of significance on their responses to the statement regarding sharing a ride with a person from a minority group while going to work in a private car. A higher percentage of the disadvantaged students indicated that they would not share a ride in a private car with a member of a minority group while going to work than did the advantaged students. The two groups of students interested in doing office work differed at the .01 level of significance on their responses as to whether they would be treated fairly in an office by a Negro, Indian, or Spanish-named supervisor. A higher percentage of the disadvantaged students interested in doing office work indicated that they thought a Negro, Indian, or Spanish-named supervisor would treat office workers fairly than did the advantaged students who were interested in doing office work. The same two groups of students differed at the .05 level of significance in their responses on the item relating to religion's being an important factor in determining what is demanded of them on the job. A higher percentage of the disadvantaged students interested in doing office work thought that their religion would be a major factor in determining what is demanded on the job than did the advantaged students interested in doing office work. The two groups did not differ significantly on the other items in the discrimination category.

When the advantaged students who were not interested in doing office work were compared with the disadvantaged students who were not interested in doing office work, their responses differed at the .05 level of significance on the item relating to sitting next to someone from a minority group at work. A higher percentage of the advantaged students not interested in doing office work indicated that they would avoid sitting next to someone from a minority group at work than did the disadvantaged students not interested in doing office work. The two groups of students who were not interested in doing office work did not differ significantly on any of the remaining nine items in the category of discrimination in the office.

TABLE 14. ANALYSIS OF VARIANCE TEST OF SIGNIFICANCE OF PERCEPTIONS OF OFFICE WORK BASED ON A COMPARISON BETWEEN ADVANTAGED STUDENTS INTERESTED IN OFFICE WORK AND ADVANTAGED STUDENTS NOT INTERESTED IN OFFICE WORK

	Interested (N=341)		Not Interested (N=117)		
Category	Mean	S.D.	Mean	S.D.	F 1,456
Job Prerequisites	23.46	2.81	22.98	3.04	2.451
Rewards of the Job	20.49	3.92	20.11	4.37	0.748
Personal Relationships	22.94	3.23	22.21	3.65	4.045*
Job Expectations	23.59	2.89	22.58	3.35	9.670**
Discrimination	23.88	3.66	23.56	3.70	0.652

*Significant at .05 level of confidence.
**Significant at .01 level of confidence.

Table 14 contains an analysis of variance test of significance of perceptions of office work based on a comparison between advantaged students interested in office work and advantaged students not interested in office work. There was a difference significant at the .05 level of confidence in the category of personal relationships. A difference at the .01 level of significance was indicated by these two groups in the category of job expectations. The remaining three categories did not reveal significant differences in the perceptions of the advantaged students.

Table 15 indicates the analysis of variance test of significance of perceptions of office work based on comparisons between disadvantaged students interested in office work and disadvantaged students not interested in office work. There were no significant differences revealed in any of the categories when these two groups of disadvantaged students were compared.

TABLE 15. ANALYSIS OF VARIANCE TEST OF SIGNIFICANCE OF PERCEPTIONS OF OFFICE WORK BASED ON COMPARISONS BETWEEN DISADVANTAGED STUDENTS INTERESTED IN OFFICE WORK AND DISADVANTAGED STUDENTS NOT INTERESTED IN OFFICE WORK

	Interested (N=383)		Not Interested (N=70)		
Category	Mean	S.D.	Mean	S.D.	F 1,451
Job Prerequisites	23.25	2.95	22.91	3.46	0.707
Rewards of the Job	20.36	4.22	20.19	4.29	0.095
Personal Relationships	22.80	3.41	22.66	3.33	0.113
Job Expectations	23.68	3.08	23.16	2.87	1.710
Discrimination	24.01	3.74	24.34	3.41	0.471

Table 16 indicates the analysis of variance test of significance scores for perceptions of office work based on a comparison between advantaged students not interested in doing office work and disadvantaged students not interested in doing office work. A comparison of the mean scores of the advantaged and disadvantaged students indicated no significant differences in their perceptions of office work. The advantaged or disadvantaged students showing the higher mean score in each area indicates that group's perception of office work was more closely related to the perceptions of office work held by the office employees than the group with the lower mean score. Only those advantaged and disadvantaged students indicating they were not interested in doing office work at the time the data for this study were collected were included in this analysis.

TABLE 16. ANALYSIS OF VARIANCE TEST OF SIGNIFICANCE OF PERCEPTIONS OF OFFICE WORK BASED ON A COMPARISON BETWEEN ADVANTAGED AND DISADVANTAGED STUDENTS NOT INTERESTED IN OFFICE WORK

	Advantaged (N=117)		Disadvantaged (N=274)		
Category	Mean	S.D.	Mean	S.D.	F 1,185
Job Prerequisites	22.98	3.04	22.91	3.46	.020
Rewards of the Job	20.11	4.37	20.19	4.29	.012
Personal Relationships	22.21	3.65	22.66	3.33	.690
Job Expectations	22.58	3.35	23.16	2.87	1.435
Discrimination	23.56	3.70	24.34	3.40	2.055

Table 17 indicates the analysis of variance test of significance scores for perceptions of office work based on a comparison between advantaged students interested in doing office work and disadvantaged students interested in doing office work. A comparison of the mean scores of the advantaged and disadvantaged students showed no significant differences in their perceptions of office work. The advantaged or disadvantaged students showing the higher mean score in each category indicates that group's perceptions of office work were more closely related to the perceptions of office work held by the office employee than the group with the lower mean score. Only those advantaged and disadvantaged students who indicated an interest in doing office work at the time the data for this study were collected were included in this analysis.

TABLE 17. ANALYSIS OF VARIANCE TEST OF SIGNIFICANCE OF PERCEPTIONS OF OFFICE WORK BASED ON A COMPARISON BETWEEN ADVANTAGED AND DISADVANTAGED STUDENTS INTERESTED IN OFFICE WORK

	Advantaged (N=283)		Disadvantaged (N=274)		
Category	Mean	S.D.	Mean	S.D.	F 1,721
Job Prerequisites	23.46	2.81	23.25	2.95	.972
Rewards of the Job	20.49	3.92	20.37	4.22	.149
Personal Relationships	22.94	3.23	22.83	3.40	.173
Discrimination	23.88	3.66	24.02	3.75	.241

The chi-square item analysis of all groups compared in Tables 9 through 13 revealed relatively few significant items showing differences in perceptions of the groups compared. In Table 14 where advantaged students were compared according to interest in office work, there was a significant difference noted in the category of personal relationships and a highly significant difference indicated in the category of job expectations. There were no significant differences indicated in Table 15 when disadvantaged students were compared according to their interest in office work. A comparison of advantaged and disadvantaged students not interested in office work in Table 16 and advantaged and disadvantaged students interested in office work in Table 17 revealed no significant differences.

Student Comparisons by Grade Averages

Table 18 contains comparisons of students' perceptions based on the overall grade average of advantaged and disadvantaged students.

The findings are based on chi-square analyses of the responses of groups of students to items related to job prerequisites and include comparisons within and between advantaged and disadvantaged groups. When the advantaged students who reported a good overall grade average were compared with the advantaged students who reported an average overall grade average, the groups differed at the .01 level of significance on the item relating to office workers' frequently having to return to school to learn about new equipment and office procedures. A larger percentage of the students reporting good overall grades than those reporting average overall grades thought that office workers did have to return to school frequently to learn about new equipment and office procedures. The two groups' responses differed at the .01 level of significance on the statement about being overweight and extremely underweight limiting one's chances of obtaining an office job. Students reporting an average overall grade average indicated a higher percentage of true responses than did the students reporting a good overall grade average. They did not differ significantly on any of the other eight items relating to job prerequisites in the office.

When the disadvantaged students who reported a good overall grade average were compared with the disadvantaged students who reported an average overall grade average, the groups differed at the .01 level of significance on whether a person can get a job in an office without a high school diploma. A higher percentage of the disadvantaged students with average overall grades did not think that a person could get a job in an office without a high school diploma than did the students with the good overall grade averages. These two

TABLE 18. GOOD AND AVERAGE STUDENTS' PERCEPTIONS OF OFFICE JOB PREREQUISITES BASED ON CHI-SQUARE ANALYSIS WITHIN AND BETWEEN ADVANTAGED AND DISADVANTAGED GROUPS

Item No.	Item	Good with Average Advantaged	Good with Average Disadvantaged	Good Advantaged with Good Disadvantaged	Average Advantaged with Average Disadvantaged
1.	Typewriting is a requirement for getting a job in an office.	2.16	.00	1.04	.09
6.	A person can get a job in an office without a high school diploma.	3.96	9.33**	.64	6.16*
11.	Office workers frequently must return to school to learn about new equipment and office procedures.	17.39**	.92	5.02	4.23
16.	People who work in offices wear expensive clothes	.71	.16	1.48	.20
21.	Most office jobs today require a shorthand skill of at least 100 words per minute.	1.42	13.53**	5.10	1.98
26.	Being overweight or extremely underweight does not limit your chances of obtaining an office job.	12.00**	5.55	.32	1.14
31.	If you worked in an office, you would not have to take a bath every day.	.03	3.35	1.77	3.40
36.	Most office workers must know how to file.	2.27	2.17	4.72	.60
41.	Office workers must know bookkeeping to get a job.	3.30	10.58**	1.69	2.06
46.	You cannot expect to get an office job with a large company right after you finish high school.	1.07	15.68**	3.90	2.56

*Significant at .05 level of confidence.
**Significant at .01 level of confidence.

groups of disadvantaged students differed at the .01 level of significance on the item relating to shorthand skill requirements for most offices today. A higher percentage of the students reporting good overall grades indicated a "don't know" response to this statement than did those students reporting average overall grades. The responses of the two groups to two other items resulted in a significant difference at the .01 level. The two items were related to the statements that most office workers have to know how to file and that a person cannot expect to get an office job with a large company right after she finishes high school. On both of these items the disadvantaged students who reported average overall grades marked a "true" response a higher percentage of times than did the disadvantaged students who reported good overall grades. The two groups of disadvantaged students did not differ significantly in their responses to the other items relating to job prerequisites in the office.

When the advantaged students who reported a good overall grade average were compared with the disadvantaged students who reported a good overall grade average, no significant differences were noted in their responses to the items regarding office job prerequisites.

When the advantaged students reporting an average overall grade average were compared with the disadvantaged students reporting an average overall grade average, the two groups differed at the .05 level of significance in their responses to the statement about a person's being able to get a job in an office without a high school diploma. A higher percentage of the advantaged students with an average overall grade average thought that they could get a job in an office without a high school diploma than did the disadvantaged students with an average overall grade average. The two groups of students reporting average grades did not differ significantly on any of the other statements regarding job prerequisites.

Table 19 contains comparisons of perceptions related to rewards of the job in the office based on the overall grade averages of advantaged and disadvantaged students' responses. The comparisons were based on chi-square analyses within and between advantaged and disadvantaged groups. When the advantaged students who reported a good overall grade average were compared with the advantaged students who reported an average overall grade average, the two groups differed at the .05 level of significance on the item pertaining to women office workers' usually making the same salary as men office workers. A higher percentage of the advantaged students with an average overall grade average responded with a "don't know" reply to this item than did the advantaged students with a good overall grade average. The two groups of advantaged students did not differ significantly in their responses on any of the other items in the category of rewards of the job.

The responses of disadvantaged students who reported a good overall average differed significantly at the .05 level with the responses of disadvantaged students who reported an average overall grade average on the item indicating that office workers do not make as much money as factory workers. A higher percentage of the students with an average overall grade average checked this item "don't know" than did the students with a good overall grade average. The responses

TABLE 19. GOOD AND AVERAGE STUDENTS' PERCEPTIONS OF REWARDS OF THE JOB IN AN OFFICE BASED ON CHI-SQUARE ANALYSIS WITHIN AND BETWEEN ADVANTAGED AND DISADVANTAGED GROUPS

Item No.	Item	Good with Average Advantaged	Good with Average Disadvantaged	Good Advantaged with Good Disadvantaged	Average Advantaged with Average Disadvantaged
2.	Office workers do not make as much money as factory workers.	.50	6.45*	1.43	6.49*
7.	Office workers are more socially accepted than workers who get their clothes dirty or greasy.	.99	6.86*	2.06	4.86
12.	If you worked in an office, you could make as much money as your father, mother, or guardian.	3.32	.19	.85	2.38
17.	Some companies pay for office worker's health and life insurance	.38	3.21	.04	1.64
22.	Office workers are respected more than other workers in the same business or industry.	2.23	2.49	1.41	2.69
27.	Office workers are usually invited to more parties and social functions than other workers.	.07	5.50	5.21	2.05
32.	Women office workers usually make the same salary as men office workers.	8.66*	15.73**	2.94	16.43**
37.	Office workers have a better chance for advancement than other workers.	5.79	2.56	2.40	.89
42.	Office workers work fewer hours than others in business and industry.	3.48	.97	3.04	3.93
47.	Office workers are more likely to have steady work than factory workers.	1.44	3.85	6.39*	.88

*Significant at .05 level of confidence.
**Significant at .01 level of confidence.

of the two groups of disadvantaged students differed at the .05 level of significance on the statement pertaining to office workers' being more socially accepted than workers who get their clothes dirty or greasy. In response to this item, a higher percentage of the disadvantaged students with average overall grade averages marked "don't know" as their response than did the disadvantaged students with good overall grades. The responses of the two groups differed at the .01 level of significance on the statement regarding women office workers' usually making the same salaries as men office workers. The students reporting good overall grade averages marked this item "don't know" a higher percentage of the time than did the students reporting average overall grade averages. The two groups of disadvantaged students did not differ significantly in their perceptions of rewards of the job in an office on any of the other seven items.

When the responses of advantaged students reporting a good overall grade average were compared with the responses of the disadvantaged students reporting a good overall grade average, the two groups differed at the .05 level of significance on the item pertaining to office workers' being more likely to have steady work than are factory workers. A higher percentage of the advantaged students with good grade averages thought office workers were not more likely to have steady work than factory workers than did the disadvantaged students with good grade averages. The two groups of students with good overall grade averages were in agreement on their perceptions of rewards of the job on the remaining statements in this category.

The responses of advantaged students with an average overall grade average differed at the .05 level of significance with the responses of disadvantaged students with an average overall grade average on the statement regarding office workers' not making as much money as factory workers. A larger percentage of the disadvantaged students with an average overall grade average marked this item "don't know" than did the advantaged students with an average overall grade average. The responses of the two groups of average students differed significantly at the .01 level on their perceptions regarding women office workers' usually making the same salary as men office workers. A higher percentage of the disadvantaged students thought that women office workers usually make the same salary as men office workers than did the advantaged students. The two groups of average students did not differ significantly in their responses to the other statements relating to rewards of the job in an office.

Table 20 contains comparisons of perceptions based on the overall grade averages of advantaged and disadvantaged students' responses on the items related to personal relationships in the office. The findings were based on chi-square analyses within and between advantaged and disadvantaged groups. When the advantaged students who reported a good overall grade average were compared with the advantaged students who reported an average overall grade average, the two groups differed at the .05 level of significance on the item regarding talking a personal problem over with a supervisor in an office. A higher percentage of advantaged students with an average overall grade average marked this item "don't know" than did the advantaged students with a

TABLE 20. GOOD AND AVERAGE STUDENTS' PERCEPTIONS OF PERSONAL RELATIONSHIPS IN AN OFFICE BASED ON CHI-SQUARE ANALYSIS WITHIN AND BETWEEN ADVANTAGED AND DISADVANTAGED GROUPS

Item No.	Item	Good with Average Advantaged	Good with Average Disadvantaged	Good Advantaged with Good Disadvantaged	Average Advantaged with Average Disadvantaged
3.	It would disturb you to have your office supervisor check your work closely.	3.20	5.19	1.55	.46
8.	You could not accept criticism from your office supervisor when he is angry.	1.60	21.28**	8.44*	6.72*
13.	The city is not a healthy place to live and do office work.	3.51	3.76	5.77	3.68
18.	Office workers enjoy working in offices in large cities.	1.89	7.57*	5.48	.08
23.	If your office supervisor asked you for a date, you should accept.	2.46	1.03	3.45	2.22
28.	If you have a personal problem, you would talk if over with your supervisor in an office.	7.39*	2.82	3.19	6.47*
33.	An office worker will invite the boss to eat lunch with her.	1.33	15.19**	3.29	2.56
38.	Women do not make good office supervisors.	3.08	6.05*	1.02	.35
43.	Office workers who are not friendly with their supervisors will not get promotions.	.57	4.99	4.07	.51
48.	In offices where customers appear daily, it should be the attitude of the office workers that the customer is always right.	3.22	7.06*	1.21	6.88*

*Significant at .05 level of confidence.
**Significant at .01 level of confidence.

good overall average. The responses of the two groups of advantaged students did not differ significantly on any of the other nine items in the category of personal relationships.

When the disadvantaged students reporting a good overall grade average were compared with the disadvantaged students reporting an average overall grade average, the two groups differed at the .01 level of significance on the item relating to being able to accept criticism from an office supervisor when he is angry. A higher percentage of the disadvantaged students with a good overall grade average thought they could accept criticism from an angry supervisor than did the disadvantaged students with an average overall grade average. The responses of the two groups of disadvantaged students differed at the .05 level of significance on whether office workers enjoy working in offices in large cities. A higher percentage of the disadvantaged students with an average overall grade average marked this item "don't know" than did the disadvantaged students with a good overall average. The responses of the two groups of disadvantaged students differed at the .01 level of significance on the statement regarding an office worker's asking the boss to eat lunch with her. A higher percentage of the disadvantaged students with a good overall grade average did not think that an office worker would invite the boss to eat lunch with her than did the disadvantaged students with an average overall grade average. The responses of the two groups of disadvantaged students differed at the .05 level of significance on whether women make good office supervisors. A larger percentage of the disadvantaged students with a good overall grade average thought that women do make good office supervisors than did the disadvantaged students with an average overall grade average. The responses of the two groups of disadvantaged students did not differ significantly on any of the remaining items in the category of personal relationships.

When the responses of advantaged students who reported a good overall grade average were compared with the responses of disadvantaged students who reported a good overall grade average, the two groups differed significantly at the .05 level on the item relating to being able to accept criticism from an office supervisor when he is angry. A higher percentage of the advantaged students felt that they could not accept criticism from an angry supervisor than did the disadvantaged students. The two groups of students did not differ significantly on any of the other items in the category of personal relationships.

When the advantaged students reporting an average overall grade average were compared with the disadvantaged students reporting an average overall grade average, their responses differed at the .05 level of significance on the statement regarding whether they could accept criticism from an office supervisor when he is angry. A higher percentage of the advantaged students with average overall grade averages thought that they could accept criticism from an angry office supervisor than did the disadvantaged students with average grades. The two groups also differed at the .05 level of significance in their responses on the item pertaining to talking over a personal problem with an office supervisor. A higher percentage of the disadvantaged students with average grades thought that they would talk personal problems over with office supervisors than did the advantaged students with average grades. The responses of the same two groups of students differed at the .05 level of significance regarding the attitude of the office worker in thinking that the customer is always right in an office. A higher percentage of the advantaged students reporting average grades thought that the office workers' attitude should be that the customer is always right than did the disadvantaged students reporting average grades. The two groups of average students did not differ significantly on the remaining items in the category of personal relationships in the office.

Table 21 contains comparisons of perceptions based on the overall grade averages of advantaged and disadvantaged students' responses to the items related to job expectations in the office. The findings were based on chi-square analyses within and between advantaged and disadvantaged groups.

When the responses of the advantaged students who reported good overall grades were compared with advantaged students who reported average overall grades, the two groups differed at the .01 level of significance on the item pertaining to office job opportunities' decreasing because of automation. A higher percentage of the advantaged students with an average overall grade average marked this item "don't know" than did the advantaged students with a good overall grade average. The responses of the two groups of advantaged students did not differ significantly on any of the other items in the category relating to job expectations.

When the responses of disadvantaged students reporting good overall grades were compared with the responses of disadvantaged

TABLE 21. GOOD AND AVERAGE STUDENTS' PERCEPTIONS OF JOB EXPECTATIONS IN THE OFFICE BASED ON CHI-SQUARE ANALYSIS WITHIN AND BETWEEN ADVANTAGED AND DISADVANTAGED GROUPS

Item No.	Item	Good with Average Advantaged	Good with Average Disadvantaged	Good Advantaged with Good Disadvantaged	Average Advantaged with Average Disadvantaged
4.	Job opportunities in office work are decreasing because of automation.	10.54**	20.11**	.45	7.54*
9.	Most office workers use a lot of make-up, perfume, and deodorant.	1.02	6.48*	.71	3.39
14.	You would accept someone correcting you if you used "it don't" instead of "it doesn't."	2.65	3.05	2.52	.87
19.	Out-of-style clothes are all right in an office as long as they are clean.	1.32	.28	4.18	6.59*
24.	You would not demand better pay if you had more education than your co-workers.	1.65	.93	2.71	2.99
29.	You would not work in an office where you were required to join a union.	1.70	5.41	.38	4.28
34.	It would be annoying to others if you had eaten onions and other highly spiced foods before going to the office.	3.65	.57	2.11	2.04
39.	It is just as important for an office worker to get along with others as it is to be efficient.	1.45	1.60	1.24	2.03
44.	Office workers usually wear bright colored clothes to make the office more cheerful.	2.77	.01	.55	6.81*
49.	You would be expected to wear jewelry in the office.	1.87	5.90	.04	4.49

*Significant at .05 level of confidence.
**Significant at .01 level of confidence.

students reporting average overall grades, the two groups differed at the .01 level of significance on the item relating to job opportunities in the office decreasing because of automation. A higher percentage of the disadvantaged students with average grades marked the item "don't know" than did the disadvantaged students with good overall grades. The responses of the same two groups differed at the .05 level of significance on whether most office workers use a lot of make-up, perfume, and deodorant. A higher percentage of the disadvantaged students with average grades thought office workers did wear a lot of make-up, perfume, and deodorant than did the disadvantaged students with good overall grades. The responses of the two disadvantaged groups did not differ significantly on any of the other items in the category of job expectations.

When the advantaged students who reported a good overall grade average were compared with the disadvantaged students who reported a good overall grade average, no significant differences were noted in their responses to the items in the category of job expectations in the office. The responses of the advantaged students reporting an average overall grade average were compared with the responses of disadvantaged students reporting an average overall average. The two groups differed at the .05 level of significance on the statement relating to job opportunities in office work decreasing because of automation. A higher percentage of the advantaged students with an average overall grade average marked "don't know" as their response to this item than did the advantaged students with a good overall grade average. The responses of the same two groups differed at the .05 level of significance on the item about out-of-style clothes being all right in an office as long as they are clean. A higher percentage of the disadvantaged students with average grades thought out-of-style clothes were all right in an office as long as they were clean than did the advantaged students with average overall grade averages. The responses of the two groups of average students differed at the .05 level of significance on the item relating to office workers' usually wearing bright-colored clothes to make the office more cheerful. A higher percentage of the advantaged students with an average overall grade average marked this item "don't know" than did the disadvantaged students with an average overall grade average. The two groups of average students did not differ significantly on any of the other seven items in the category of job expectations.

Table 22 contains comparisons of perceptions based on the reported overall grade averages of advantaged and disadvantaged students' responses to the items related to discrimination in the office. The findings were based on chi-square analyses within and between advantaged and disadvantaged groups. When the responses of advantaged students who reported good overall grades were compared with the responses of advantaged students who reported average grades, the two groups differed at the .05 level of significance on the item relating to taking orders from a person from a minority group at work. A higher percentage of the advantaged students with average grades marked "don't know" as their response to this statement than did the advantaged students with good overall grades. The two groups differed at the .01 level of significance on the statement regarding their religious beliefs being important in determining the kind of

TABLE 22. GOOD AND AVERAGE STUDENTS' PERCEPTIONS OF DISCRIMINATION IN THE OFFICE BASED ON CHI-SQUARE ANALYSIS WITHIN AND BETWEEN ADVANTAGED AND DISADVANTAGED GROUPS

Item No.	Item	Good with Average Advantaged	Good with Average Disadvantaged	Good Advantaged with Good Disadvantaged	Average Advantaged with Average Disadvantaged
5.	You would not avoid sitting next to someone from a minority group at work.	4.09	14.83**	1.86	5.35
10.	You would not take orders from a person from a minority group at work.	7.27*	39.58**	8.00*	9.37*
15.	You would not share a ride with a person from a minority group while going to work in a private car.	.15	9.91**	8.12*	7.53*
20.	You would not take a coffee break with someone from a minority group.	.44	7.94*	1.27	2.08
25.	If you accidentally left your money at home, you would ask someone from a minority group to lend you lunch money.	.70	2.92	.71	.05
30.	Your religious beliefs are important in determining the kind of office in which you would work.	27.31**	31.64**	.97	1.12
35.	A person's color might cause him to be looked down upon by fellow office workers.	11.66**	8.63*	4.39	.71
40.	A Negro, Indian, or Spanish-named supervisor would treat other office workers fairly.	2.19	4.18	8.87*	11.18**
45.	One's religion should not be important in determining what is demanded on the job.	11.44**	7.91*	4.86	5.06
50.	Members of some minority groups cannot get and keep a job in an office.	.24	4.50	3.25	2.17

*Significant at .05 level of confidence.
**Significant at .01 level of confidence.

office in which they would work. A higher percentage of the advantaged students reporting good rather than those reporting average grades indicated that their religious beliefs would be important in determining the kind of office in which they would work. The responses of the two groups of advantaged students differed at the .01 level of significance on whether a person's color might cause him to be looked down upon by fellow office workers. A higher percentage of the advantaged students with good rather than those with average grades thought that the color of a person might cause him to be looked down upon. The responses of the two groups of advantaged students differed at the .01 level of significance on the item stating that one's religion should not be important in determining what is demanded on the job. A higher percentage of the advantaged students with average rather than those with good grades did not believe that one's religion should be important in determining what is demanded on the job. The responses of the two groups of advantaged students did not differ significantly on any of the other items in the category of discrimination in the office.

When the responses of disadvantaged students who reported a good overall grade average were compared with the responses of the disadvantaged students who reported an average overall grade average, the two groups differed at the .01 level of significance on the item referring to being seated next to someone from a minority group at work. A higher percentage of the disadvantaged students with good rather than those with average overall grades indicated they would not avoid sitting next to someone from a minority group at work. The responses of the two disadvantaged groups differed at the .01 level of significance on the item relating to taking orders from a person from a minority group at work. A higher percentage of the disadvantaged students with good rather than those with average overall grades indicated they would take orders from a person from a minority group at work. The responses of the two groups of disadvantaged students differed at the .01 level on the statement regarding sharing a ride with a person from a minority group while going to work in a private car. A higher percentage of the disadvantaged students reporting good rather than those with average overall grades indicated they would share a ride with a person from a minority group while going to work in a private car. The responses of the two groups differed at the .05 level of significance on whether they would take a coffee break with someone from a minority group. A higher percentage of the disadvantaged students with average rather than those with good overall grades marked the item "don't know." The responses of the two groups of disadvantaged students differed at the .01 level of significance on the statement that religious beliefs are important in determining the kind of office in which they would work. A higher percentage of disadvantaged students with average rather than those with good overall grades reported that their religious beliefs were important in determining the kind of office in which they would work. The responses of the two groups differed at the .05 level of significance on the statement relating to a person's color causing him to be looked down upon by his fellow office workers. A higher percentage of the disadvantaged students with good rather than those with average grades thought that a person's color might cause him to be looked down upon by his fellow office employees. The responses of the two groups of disadvantaged students differed at the .05 level of significance on the item pertaining to one's religion being important in determining what is demanded on the job. A higher percentage of the disadvantaged students with average rather than those with good grades indicated that they did not know how to reply to this statement by marking it "don't know." The two groups of disadvantaged students did not differ significantly on three items in the category of discrimination.

When the responses of advantaged students who reported a good overall grade average were compared with the responses of disadvantaged students who reported a good overall grade average, the two groups differed at the .05 level of significance on the item relating to taking orders from a person from a minority group at work. A higher percentage of the disadvantaged students indicated they would take orders from a member of a minority group at work than did the advantaged students. The responses of the two groups of students differed at the .05 level of significance on the statement regarding sharing a ride with a person from a minority group while going to work in a private car. A higher percentage of the advantaged students with good rather than those with average grades indicated they did not know how to respond to this statement by marking "don't know."

The responses of the two groups differed at the .05 level of significance on the item pertaining to a Negro, Indian, or Spanish-named supervisor's treating other office workers fairly. A higher percentage of the advantaged rather than the disadvantaged students with good grades marked this item "don't know." The two groups did not differ significantly on any of the other items in the category of discrimination.

When the responses of advantaged students with an average overall grade average in school were compared with the responses of disadvantaged students with an average overall grade average in school, the two groups differed at the .01 level of significance on the item regarding taking orders from a person from a minority group at work. A higher percentage of the advantaged rather than the disadvantaged students with average grades indicated they would take orders from a person from a minority group at work. The responses of groups of students reporting average grades differed at the .05 level of significance to the statement concerning sharing a ride with a person from a minority group while going to work in a private car. A higher percentage of the advantaged rather than the disadvantaged students with average grades marked this statement "don't know." The two groups of average students differed at the .01 level of significance on their responses to the item relating to a Negro, Indian, or Spanish-named supervisor's treating other office workers fairly. A higher percentage of the disadvantaged rather than the advantaged students with average grades indicated they thought a Negro, Indian or Spanish-named supervisor would treat other office workers fairly. The two groups of students did not differ significantly on any of the other items in the category relating to discrimination.

Table 23 indicates the analysis of variance test of significance scores for perceptions of office work based on comparisons between the advantaged students reporting good grades and the disadvantaged students reporting good grades. The advantaged and disadvantaged students who reported having good grades did not differ significantly on any of the categories reported in the table. The group showing the higher mean score in each category indicates a closer congruence of perceptions of office work with the office worker than does the group with the lower mean score value.

TABLE 23. ANALYSIS OF VARIANCE TEST OF SIGNIFICANCE OF PERCEPTIONS OF OFFICE WORK BASED ON A COMPARISON BETWEEN THE ADVANTAGED AND DISADVANTAGED STUDENTS REPORTING GOOD GRADES

	Advantaged (N=169)		Disadvantaged (N=159)		
Category	Mean	S.D.	Mean	S.D.	F 1,326
Job Prerequisites	23.33	3.02	23.30	3.12	.011
Rewards of the Job	20.59	3.81	20.86	4.53	.342
Personal Relationships	23.02	3.16	23.52	3.10	2.075
Job Expectations	23.65	2.82	23.82	3.04	.285
Discrimination	24.22	3.33	24.71	3.56	1.634

Table 24 indicates the analysis of variance test of significance scores for perceptions of office work based on a comparison between advantaged students reporting average grades and disadvantaged students reporting average grades. A comparison of the mean scores of the advantaged and disadvantaged students showed no significant differences in their perceptions of office work. The advantaged or disadvantaged group showing the higher mean score in each category indicates a closer congruence of perceptions of office work with the office worker than does the group with the lower mean score value.

The comparisons of students based on grades reported revealed few significant differences in their perceptions of office work by the chi-square test. The analysis of variance test of significance failed to indicate any significant differences in the categories of items when the groups of students were compared by grades reported and within advantaged and disadvantaged groups.

TABLE 24. ANALYSIS OF VARIANCE TEST OF SIGNIFICANCE OF PERCEPTIONS OF OFFICE WORK BASED ON A COMPARISON BETWEEN ADVANTAGED AND DISADVANTAGED STUDENTS REPORTING AVERAGE GRADES

	Advantaged (N=283)		Disadvantaged (N=274)		
Category	Mean	S.D.	Mean	S.D.	F 1,555
Job Prerequisites	23.30	2.78	23.23	3.03	.073
Rewards of the Job	20.25	4.20	20.07	4.08	.256
Personal Relationships	22.57	3.42	22.50	3.40	.056
Job Expectations	23.11	3.14	23.48	3.05	1.978
Discrimination	23.59	3.78	23.79	3.71	.390

Comparisons of Advantaged-Disadvantaged Spanish-American, Indian and Anglo Students

Table 25 contains comparisons of students' perceptions of office job prerequisites based on chi-square analyses between the responses of advantaged and disadvantaged cultural groups. Advantaged and disadvantaged Spanish-American students did not differ significantly in their perceptions of office job prerequisites. Advantaged Indian students were compared with the disadvantaged Indian students, and the two groups did not differ significantly in their perceptions of office job prerequisites. A comparison between advantaged Anglo students and disadvantaged Anglo students' perceptions of office job prerequisites resulted in a difference at the .05 level of significance on the item relating to wearing expensive clothes in the office. A higher

TABLE 25. STUDENTS' PERCEPTIONS OF JOB PREREQUISITES BASED ON CHI-SQUARE ANALYSIS BETWEEN ADVANTAGED AND DISADVANTAGED GROUPS

Item No.	Item	Spanish-American Advantaged with Spanish-American Disadvantaged	Indian Advantaged with Indian Disadvantaged	Anglo Advantaged with Anglo Disadvantaged
1.	Typewriting is a requirement for getting a job in an office.	1.50	3.23	.76
6.	A person can get a job in an office without a high school diploma.	.61	.59	1.97
11.	Office workers frequently must return to school to learn about new equipment and office procedures.	.74	.93	1.02
16.	People who work in offices wear expensive clothes.	5.33	.00	6.99*
21.	Most office jobs today require a shorthand skill of at least 100 words per minute.	.60	.71	9.19*
26.	Being overweight or extremely underweight does not limit your chances of obtaining an office job.	1.44	.64	.60
31.	If you worked in an office, you would not have to take a bath every day.	1.52	.99	4.12
36.	Most office workers must know how to file.	1.50	1.62	1.93
41.	Office workers must know bookkeeping to get a job.	1.90	.50	2.94
46.	You cannot expect to get an office job with a large company right after you finish high school.	3.65	1.80	3.38

*Significant at .05 level of confidence.

percentage of the disadvantaged Anglo students marked the item "don't know" than did the advantaged Anglo students. Responses of advantaged and disadvantaged Anglo students differed at the .05 level of significance on the statement regarding most office jobs today requiring a shorthand skill of at least 100 words per minute. A higher proportion of the advantaged than of the disadvantaged Anglo students thought that most office jobs require a shorthand skill of 100 words per minute. The two groups of Anglo students did not differ significantly on any of the other items pertaining to office job prerequisites.

Table 26 indicates comparisons of students' perceptions of rewards of office jobs based on chi-square analyses between the responses of advantaged and disadvantaged cultural groups. When the advantaged Spanish-American students were compared with the disadvantaged Spanish-American students, they differed at the .05 level of significance on the item stating that office workers are more socially accepted than workers who get their clothes dirty or greasy. A higher percentage of the advantaged students did not think that the office workers were more socially accepted than workers who got their clothes dirty or greasy. The two groups of Spanish-American students did not differ significantly on any of the other items relating to office job prerequisites. When the advantaged Indian students were compared with the disadvantaged Indian students, they did not differ on any of the items relating to office job prerequisites.

A comparison of the advantaged Anglo students with the disadvantaged Anglo students revealed a significant difference at the .05 level on the statement pertaining to women office workers' usually

TABLE 26. STUDENTS' PERCEPTIONS OF REWARDS OF JOBS BASED ON CHI-SQUARE ANALYSIS BETWEEN ADVANTAGED AND DISADVANTAGED GROUPS

Item No.	Item	Spanish-American Advantaged with Spanish-American Disadvantaged	Indian Advantaged with Indian Disadvantaged	Anglo Advantaged with Anglo Disadvantaged
2.	Office workers do not make as much money as factory workers.	1.17	1.63	2.88
7.	Office workers are more socially accepted than workers who get their clothes dirty or greasy.	6.04*	4.01	.71
12.	If you worked in an office, you could make as much money as your father, mother, or guardian.	3.42	1.66	1.82
17.	Some companies pay for office worker's health and life insurance.	1.45	.36	.32
22.	Office workers are respected more than other workers in the same business or industry.	3.73	2.83	.65
27.	Office workers are usually invited to more parties and social functions than other workers.	3.34	1.74	1.90
32.	Women office workers usually make the same salary as men office workers.	1.93	.42	8.25*
37.	Office workers have a better chance for advancement than other workers.	.11	.04	2.67
42.	Office workers work fewer hours than others in business and industry.	2.22	2.11	1.75
47.	Office workers are more likely to have steady work than factory workers.	1.39	.80	2.62

*Significant at .05 level of confidence.

making the same salary as men office workers. A higher percentage of the disadvantaged Anglo students thought that women office workers usually make the same salary as men office workers. These two groups of students did not differ significantly on any of the other items in the category of rewards of the job in an office.

Table 27 contains comparisons of students' perceptions of personal relationships in the office based on chi-square analyses between the responses of advantaged and disadvantaged cultural groups. There were no significant differences between the responses of advantaged Spanish-Americans and disadvantaged Spanish-Americans to the statements in the category of personal relationships in the office. A comparison of the advantaged Indian students with the disadvantaged Indian students revealed a difference significant at the .05 level on the item pertaining to an office worker's inviting the boss to eat lunch with her. A high percentage of the advantaged Indian students indicated they would not invite the boss to eat lunch with them; whereas, a high percentage of the disadvantaged Indian students marked this item "don't know." The Indian students did not differ significantly on any of the other items in the category of personal relationships.

Table 28 contains comparisons of students' perceptions of job expectations in the office based on chi-square analyses between the responses of advantaged and disadvantaged groups. The advantaged Spanish-American students were compared with the disadvantaged Spanish-American students in their perceptions of office job expectations. There were no significant differences in their responses. A comparison

TABLE 27. STUDENTS' PERCEPTIONS OF PERSONAL RELATIONSHIPS IN THE OFFICE BASED ON CHI-SQUARE ANALYSIS BETWEEN ADVANTAGED AND DISADVANTAGED GROUPS

Item No.	Item	Spanish-American Advantaged with Spanish-American Disadvantaged	Indian Advantaged with Indian Disadvantaged	Anglo Advantaged with Anglo Disadvantaged
3.	It would disturb you to have your office supervisor check your work closely.	.90	1.35	.85
8.	You could not accept criticism from your office supervisor when he is angry.	3.32	4.50	2.03
13.	The city is not a healthy place to live and do office work.	2.15	.66	6.27*
18.	Office workers enjoy working in offices in large cities.	.16	.75	3.21
23.	If your office supervisor asked you for a date, you should accept.	2.98	1.46	6.67*
28.	If you have a personal problem, you would talk it over with your supervisor in an office.	3.67	3.55	4.08
33.	An office worker will invite the boss to eat lunch with her.	.94	9.42**	9.43**
38.	Women do not make good office supervisors.	.78	.62	1.79
43.	Office workers who are not friendly with their supervisors will not get promotions.	.63	.41	.11
48.	In offices where customers appear daily, it should be the attitude of the office workers that the customer is always right.	.07	3.22	.95

*Significant at .05 level of confidence.
**Significant at .01 level of confidence.

TABLE 28. STUDENTS' PERCEPTIONS OF JOB EXPECTATIONS IN THE OFFICE BASED ON CHI-SQUARE ANALYSIS WITHIN ADVANTAGED AND DISADVANTAGED GROUPS

Item No.	Item	Spanish-American Advantaged with Spanish-American Disadvantaged	Indian Advantaged with Indian Disadvantaged	Anglo Advantaged with Anglo Disadvantaged
4.	Job opportunities in office work are decreasing because of automation.	3.58	.40	3.34
9.	Most office workers use a lot of make-up, perfume, and deodorant.	.84	.66	1.15
14.	You would accept someone correcting you if you used "it don't" instead of "it doesn't."	.18	3.27	.37
19.	Out-of-style clothes are all right in an office as long as they are clean.	.09	.20	6.82*
24.	You would not demand better pay if you had more education than your co-workers.	1.56	.26	6.94*
29.	You would not work in an office where you were required to join a union.	.25	2.81	.70
34.	It would be annoying to others if you had eaten onions and other highly spiced foods before going to the office.	.01	1.70	.54
39.	It is just as important for an office worker to get along with others as it is to be efficient.	.48	4.23	.73
44.	Office workers usually wear bright colored clothes to make the office more cheerful.	1.54	2.44	1.56
49.	You would be expected to wear jewelry in the office.	3.31	7.55	.86

*Significant at .05 level of confidence.

of the advantaged Indian students with the disadvantaged Indian students showed a difference significant at the .05 level on the item relating to office workers' being expected to wear jewelry. A higher percentage of the advantaged Indian students marked this item "don't know" than did the disadvantaged Indian students. These two groups of Indian students did not differ significantly on any of the other items in the category of office job expectations.

When the advantaged Anglo students were compared with the disadvantaged Anglo students, they differed at the .05 level of significance on the statement pertaining to out-of-style clothes being all right to wear in an office as long as they were clean. A higher percentage of the disadvantaged than advantaged Anglo students thought out-of-style clothes were all right in an office as long as they were clean. The two groups of Anglo students differed at the .05 level of significance on the item relating to better pay if one had more education than her co-worker. A higher percentage of the advantaged Anglo students indicated they would not demand better pay if they had more education than their co-workers. The two groups of Anglo students did not differ significantly on any of the remaining items in the category of job expectations.

Table 29 contains comparisons of students' perceptions of discrimination in the office based on chi-square analyses between the responses of advantaged and disadvantaged groups. When the advantaged Spanish-American students were compared with the disadvantaged Spanish-American students, they differed at the .05 level of significance on the statement pertaining to sitting next to someone from a minority group

TABLE 29. STUDENTS' PERCEPTIONS OF DISCRIMINATION IN THE OFFICE BASED ON CHI-SQUARE ANALYSIS WITHIN ADVANTAGED AND DISADVANTAGED GROUPS

Item No.	Item	Spanish-American Advantaged with Spanish-American Disadvantaged	Indian Advantaged with Indian Disadvantaged	Anglo Advantaged with Anglo Disadvantaged
5.	You would not avoid sitting next to someone from a minority group at work.	8.70*	.35	3.03
10.	You would not take orders from a person from a minority group at work.	1.47	.49	3.29
15.	You would not share a ride with a person from a minority group while going to work in a private car.	5.41	1.99	6.75*
20.	You would not take a coffee break with someone from a minority group.	.77	1.77	1.52
25.	If you accidentally left your money at home, you would ask someone from a minority group to lend you lunch money.	3.04	1.63	.09
30.	Your religious beliefs are important in determining the kind of office in which you would work.	1.32	5.65	1.99
35.	A person's color might cause him to be looked down upon by fellow office workers.	1.17	4.16	7.99*
40.	A Negro, Indian, or Spanish-named supervisor would treat other office workers fairly.	3.53	3.22	4.92
45.	One's religion should not be important in determining what is demanded on the job.	.35	1.86	3.65
50.	Members of some minority groups cannot get and keep a job in an office.	.93	.12	2.26

*Significant at .05 level of confidence.

at work. A higher percentage of the advantaged than the disadvantaged Spanish-American students indicated they would not avoid sitting next to someone from a minority group at work. The two groups of Spanish-American students did not differ significantly on any of the other items in the category of discrimination.

A comparison of the advantaged Indian students with the disadvantaged Indian students revealed no significant differences on any of the items relating to discrimination.

When the advantaged Anglo students were compared with the disadvantaged Anglo students, they differed at the .05 level of significance on the statement regarding sharing a ride with a person from a minority group while going to work in a private car. A higher percentage of the advantaged than the disadvantaged Anglo students marked this item "don't know." The two groups of Anglo students differed at the .05 level of significance on the item pertaining to a person's color causing him to be looked down upon by his fellow office workers. A higher percentage of the disadvantaged than the advantaged Anglo students indicated that a person's color might cause him to be looked down upon by fellow office workers. The two Anglo groups did not differ significantly on any of the other items relating to discrimination.

Table 30 contains an analysis of variance test of significance of perceptions of office work based on a comparison between advantaged and disadvantaged Spanish-American students. No significant differences in any of the categories of statements were noted in this analysis. The group showing the highest mean score in each category was more closely in agreement with office employees than the group with the lower mean score.

TABLE 30. ANALYSIS OF VARIANCE TEST OF SIGNIFICANCE OF PERCEPTIONS OF OFFICE WORK BASED ON A COMPARISON BETWEEN ADVANTAGED AND DISADVANTAGED SPANISH-AMERICAN STUDENTS

	Advantaged (N=21)		Disadvantaged (N=136)		
Category	Mean	S.D.	Mean	S.D.	F 1,155
Job Prerequisites	22.95	2.85	23.32	2.44	0.381
Rewards of the Job	19.62	4.06	19.39	3.95	0.064
Personal Relationships	23.48	2.34	22.59	3.30	1.401
Job Expectations	23.81	2.79	23.74	2.82	0.11
Discrimination	24.33	3.99	24.70	3.33	0.205

Table 31 indicates the analysis of variance test of significance of perceptions of office work based on a comparison between advantaged and disadvantaged Indian students. There were no significant differences in any of the categories in this analysis. The group showing the highest mean score in each category was more closely in agreement with office employees than the group with the lower mean score.

TABLE 31. ANALYSIS OF VARIANCE TEST OF SIGNIFICANCE OF PERCEPTIONS OF OFFICE WORK BASED ON A COMPARISON BETWEEN ADVANTAGED AND DISADVANTAGED INDIAN STUDENTS

	Advantaged (N=12)		Disadvantaged (N=42)		
Category	Mean	S.D.	Mean	S.D.	F 1,52
Job Prerequisites	22.83	2.76	22.55	2.84	0.088
Rewards of the Job	19.50	2.75	18.45	3.77	0.797
Personal Relationships	21.75	1.82	20.21	3.23	2.472
Job Expectations	20.83	2.89	22.02	3.16	1.375
Discrimination	21.50	3.40	20.60	4.03	0.503

Table 32 contains an analysis of variance test of significance of perceptions of office work based on a comparison between advantaged and disadvantaged Anglo students. There were no significant differences in any of the categories indicated by this analysis. The group showing the highest mean score in each category was more closely in agreement with office employees than the group with the lower mean score.

TABLE 32. ANALYSIS OF VARIANCE TEST OF SIGNIFICANCE OF PERCEPTIONS OF OFFICE WORK BASED ON A COMPARISON BETWEEN ADVANTAGED AND DISADVANTAGED ANGLO STUDENTS

	Advantaged (N=435)		Disadvantaged (N=269)		
Category	Mean	S.D.	Mean	S.D.	F 1,702
Job Prerequisites	23.36	2.87	23.38	3.20	0.000
Rewards of the Job	20.44	4.08	20.96	4.33	2.500
Personal Relationships	22.69	3.41	23.26	3.30	4.814*
Job Expectations	23.35	3.04	23.74	3.09	2.606
Discrimination	23.81	3.63	24.26	3.51	2.558

*Significant at the .05 level of confidence.

The comparisons of the advantaged and disadvantaged Spanish-American, Indian, and Anglo students within groups by chi-square analysis revealed few significant differences in their perceptions of office work. There were no significant differences in any of the categories of statements when the analysis of variance test of significance was applied to the comparisons of the advantaged and disadvantaged Spanish-Americans and Indians. However, the Anglo students showed a significant difference in their perceptions of personal relationships in the analysis of variance test when the advantaged and disadvantaged were compared.

Comparisons of Spanish-American, Indian, Anglo Advantaged; Spanish-American, Indian, Anglo Disadvantaged

Table 33 contains comparisons of students' perceptions of office job prerequisites based on chi-square analyses of the responses of Spanish-American, Indian, and Anglo students within advantaged and disadvantaged groups. When the Spanish-American, Indian, and Anglo advantaged students were compared, they differed at the .05 level of significance on the item relating to people working in offices wearing expensive clothes. A higher percentage of the Spanish-American and Indian students thought that people in offices do not wear expensive clothes than did the Anglo advantaged students. The three groups of students were in agreement on the other nine items in the category of job prerequisites.

When the responses of disadvantaged Spanish-American, Indian, and Anglo students were compared, the groups differed on eight of the ten items relating to office job prerequisites. The three groups differed at the .05 level of significance in their responses to the statement indicating a person can get a job in an office without a high school diploma. A higher percentage of the Spanish-American and Indian students than Anglo students indicated that a person cannot get a job in an office without a high school diploma. The responses of the three groups differed at the .01 level of significance on the statement that office workers frequently must return to school to learn about new equipment and office procedures. A high percentage of the Spanish-American disadvantaged students marked this item "don't know"; whereas, a high percentage of the Indian and Anglo disadvantaged students

TABLE 33. SPANISH-AMERICAN, INDIAN AND ANGLO STUDENTS' PERCEPTIONS OF JOB PREREQUISITES BASED ON CHI-SQUARE ANALYSIS WITHIN ADVANTAGED AND DISADVANTAGED GROUPS

Item No.	Item	Spanish-American, Indian, Anglo Advantaged	Spanish-American, Indian, Anglo Disadvantaged
1.	Typewriting is a requirement for getting a job in an office.	6.80	5.20
6.	A person can get a job in an office without a high school diploma.	2.28	11.36*
11.	Office workers frequently must return to school to learn about new equipment and office procedures.	5.62	15.81**
16.	People who work in offices wear expensive clothes.	9.53*	21.96**
21.	Most office jobs today require a shorthand skill of at least 100 words per minute.	1.62	16.96**
26.	Being overweight or extremely underweight does not limit your chances of obtaining an office job.	1.75	16.59**
31.	If you worked in an office, you would not have to take a bath every day.	.80	11.14*
36.	Most office workers must know how to file.	2.56	2.15
41.	Office workers must know bookkeeping to get a job.	3.05	31.14**
46.	You cannot expect to get an office job with a large company right after you finish high school.	1.62	11.77*

Note: Tables 27 through 31 contain four degrees of freedom.
*Significant at .05 level of confidence.
**Significant at .01 level of confidence.

indicated that office workers must frequently return to school to learn about new equipment and office procedures. The three cultural groups differed at the .01 level of significance in their responses regarding people who work in offices wearing expensive clothes. A high percentage of the Spanish-American and Indian students believed that office workers do not wear expensive clothes; whereas, the Anglo students marked the item "don't know" a high percentage of the time. The responses of the three groups differed at the .01 level of significance on the item stating most office jobs today require a shorthand skill of at least 100 words per minute. A high percentage of the Spanish-American students indicated that a shorthand skill of 100 words per minute was not required in most office jobs, while the disadvantaged Indian and Anglo students marked this item "don't know" a high percentage of the time.

The three disadvantaged cultural groups differed at the .01 level of significance in response to the statement that being overweight or extremely underweight limits one's chances of obtaining office employment. A high percentage of the disadvantaged Spanish-American and Anglo students believed that being overweight or extremely underweight does not limit one's chances of obtaining office employment, while the disadvantaged Indian students marked the item "don't know" a high percent of the time. The responses of the three groups of disadvantaged students differed at the .05 level of significance on the statement regarding a person's having to take a bath every day if she worked in an office. A higher percentage of the disadvantaged Anglo students indicated that a person would have to take a bath every day than did the disadvantaged Spanish-American and Indian students. The responses of the three cultural groups of disadvantaged students differed at the .01 level of significance on the item relating to office workers' having to know bookkeeping to get a job. A high percentage of the Spanish-American and Indian students believed that an office worker did have to know bookkeeping to get an office job; whereas, a high percentage of the Anglo students marked the item "don't know." The disadvantaged students differed at the .01 level of significance on the item stating that one cannot expect to get an office job with a large company right after she finishes high school. A higher percentage of the disadvantaged Spanish-American and Indian students than Anglo students did not think they could get a job with a large company right after they finished high school. The three cultural groups did not differ significantly on the other two items in the category of office job prerequisites.

Table 34 indicates comparisons of students' perceptions of rewards of the job in an office based on chi-square analyses of the responses of Spanish-American, Indian, and Anglo students within advantaged and disadvantaged groups. When the responses of the advantaged Spanish-American, Indian, and Anglo students were compared, the groups differed at the .05 level of significance on the item relating to office workers' being respected more than other workers in the same business or industry. A high percentage of the advantaged Spanish-American and Anglo students marked the item "don't know"; whereas, a high percentage of advantaged Indian students indicated that office workers were respected more than other workers in the same

TABLE 34. SPANISH-AMERICAN, INDIAN AND ANGLO STUDENTS' PERCEPTIONS OF REWARDS OF THE JOB IN AN OFFICE BASED ON CHI-SQUARE ANALYSIS WITHIN ADVANTAGED AND DISADVANTAGED GROUPS

Item No.	Item	Spanish-American, Indian, Anglo Advantaged	Spanish-American, Indian, Anglo Disadvantaged
2.	Office workers do not make as much money as factory workers.	5.38	60.18**
7.	Office workers are more socially accepted than workers who get their clothes dirty or greasy.	5.64	20.27**
12.	If you worked in an office, you could make as much money as your father, mother, or guardian.	5.50	4.96
17.	Some companies pay for office worker's health and life insurance.	5.14	3.16
22.	Office workers are respected more than other workers in the same business or industry.	9.75*	12.79*
27.	Office workers are usually invited to more parties and social functions than other workers.	4.93	11.50*
32.	Women office workers usually make the same salary as men office workers.	7.14	10.92*
37.	Office workers have a better chance for advancement than other workers.	6.24	15.60**
42.	Office workers work fewer hours than others in business and industry.	5.97	8.96
47.	Office workers are more likely to have steady work than factory workers.	4.93	2.79

*Significant at .05 level of confidence.
**Significant at .01 level of confidence.

business or industry. The three advantaged cultural groups did not differ significantly on any of the other nine items in the category of rewards of the job.

When the responses of disadvantaged Spanish-American, Indian, and Anglo students were compared, the groups differed at the .01 level of significance on the item relating to office workers' making as much money as factory workers. A high percentage of the disadvantaged Spanish-American and Indian students marked the item "don't know"; whereas, a high percentage of the disadvantaged Anglo students indicated that office workers do make as much money as factory workers. The disadvantaged groups of students differed at the .01 level of significance in their responses to the item pertaining to office workers' being more socially accepted than workers who get their clothes dirty or greasy. A high percentage of the disadvantaged Spanish-American students thought office workers were more socially accepted than workers who get their clothes dirty or greasy, while a high percentage of the disadvantaged Indian students marked a "don't know" response. The disadvantaged Anglo students did not think that office workers were more socially accepted than factory workers. The responses of the three cultural groups of disadvantaged students differed at the .05 level of significance on the statement pertaining to office workers' being respected more than other workers in the same business or industry. The disadvantaged Spanish-American and Indian students indicated a "don't know" response to the statement, while the disadvantaged Anglo students did not believe that office workers were more respected than other workers in the same business or industry. The three groups of students differed at the .05 level of significance in their responses on the item concerning office workers' usually being invited to more parties and social functions than other workers. A higher percentage of the disadvantaged Spanish-American and Indian than Anglo students marked the item "don't know." The responses of the three cultural groups differed at the .05 level of significance on the item pertaining to women office workers' usually making the same salary as men office workers. A high percentage of the disadvantaged Spanish-American students indicated that women office workers do make the same salary as men office workers, while the disadvantaged Indian and Anglo students marked the item "don't know." The three groups of students differed at the .01 level of significance on the statement pertaining to office workers' having a better chance for advancement than other workers. A high percentage of the disadvantaged Spanish-American students indicated that office workers have a better chance for advancement than other workers, while a high percentage of the disadvantaged Indian students marked the item "don't know." A high percentage of the disadvantaged Anglo students indicated that office workers did _not_ have a better chance for advancement than other workers. The three groups of disadvantaged students did not differ significantly on the other four items in the category of rewards of the job.

Table 35 contains comparisons of students' perceptions of personal relationships in the office based on chi-square analyses of the responses of Spanish-American, Indian, and Anglo students within advantaged and disadvantaged groups. When the advantaged Spanish-American, Indian, and Anglo students were compared, the responses of

TABLE 35. SPANISH-AMERICAN, INDIAN AND ANGLO STUDENTS' PERCEPTIONS OF PERSONAL RELATIONSHIPS IN AN OFFICE BASED ON CHI-SQUARE ANALYSIS WITHIN ADVANTAGED AND DISADVANTAGED GROUPS

Item No.	Item	Spanish-American, Indian, Anglo Advantaged	Spanish-American, Indian, Anglo Disadvantaged
3.	It would disturb you to have your office supervisor check your work closely.	6.40	19.51**
8.	You could not accept criticism from your office supervisor when he is angry.	26.06**	37.54**
13.	The city is not a healthy place to live and do office work.	8.79	13.26*
18.	Office workers enjoy working in offices in large cities.	2.70	8.65
23.	If your office supervisor asked you for a date, you should accept.	4.50	8.74
28.	If you have a personal problem, you would talk it over with your supervisor in an office.	5.53	24.29**
33.	An office worker will invite the boss to eat lunch with her.	3.08	30.56**
38.	Women do not make good office supervisors.	6.24	28.56**
43.	Office workers who are not friendly with their supervisors will not get promotions.	2.34	3.61
48.	In offices where customers appear daily, it should be the attitude of the office workers that the customer is always right.	6.02	14.66**

*Significant at .05 level of confidence.
**Significant at .01 level of confidence.

the groups differed at the .01 level of significance on the item pertaining to accepting criticism from an office supervisor when he is angry. A high percentage of the advantaged Spanish-American students did _not_ think they could accept criticism from an angry office supervisor; a high percentage of the advantaged Indian students did not know whether they could accept criticism from an angry supervisor; and a high percentage of the Anglo students indicated that they could accept criticism from an angry supervisor. The responses of the three cultural groups of students did not differ significantly on any of the other nine items in the category of personal relationships.

When the responses of the disadvantaged Spanish-American, Indian, and Anglo students were compared, the groups differed at the .01 level of significance on the item pertaining to being disturbed if an office supervisor checked their work closely. A higher percentage of the disadvantaged Spanish-American and Anglo students than Indian students indicated that it would not bother them to have an office supervisor check their work closely. The responses of the three groups of disadvantaged students differed at the .01 level of significance on the item pertaining to not being able to accept criticism from an angry office supervisor. A higher percentage of the disadvantaged Spanish-American and Anglo students than Indian students indicated that they could accept criticism from an angry office supervisor. The responses of the three groups of students differed at the .05 level of significance on the statement pertaining to the city's not being a healthy place in which to live and do office work. The Spanish-American and Anglo students indicated a higher percentage of times than the Indian students that they thought the city was a healthy place in which to live and do office work. The three cultural groups differed at the .01 level of significance in their responses to the item regarding a person's talking over personal problems with her supervisor in an office. The Spanish-American and Anglo disadvantaged students indicated more frequently than the Indian students that they would not talk personal problems over with office supervisors. The three disadvantaged cultural groups differed at the .01 level of significance on the statement pertaining to an office worker's inviting the boss to eat lunch with her. A high percentage of the disadvantaged Spanish-American and Indian students marked the item "don't know"; whereas, a high percentage of the disadvantaged Anglo students indicated an office worker would invite the boss to eat lunch with her. The disadvantaged students in the three groups differed at the .01 level of significance in their responses to the item stating that in offices where customers appear daily it should be the attitude of the office workers that the customer is always right. The three groups differed at the .01 level of significance in their perceptions of women's making good office supervisors. The Spanish-American and Anglo disadvantaged students indicated more often than did the Indian students that women do make good office supervisors; whereas, the disadvantaged Indian students marked "don't know" for the item a higher percentage of the time. There was no significant difference in the perceptions of the three groups of disadvantaged students on the other three items in the category of personal relationships.

Table 36 contains comparisons of students' perceptions of office job expectations based on chi-square analyses of the responses of Spanish-American, Indian, and Anglo students within advantaged and disadvantaged groups. When the responses of the advantaged Spanish-American, Indian, and Anglo students were compared, the three groups differed at the .01 level of significance on the item pertaining to job opportunities in office work decreasing because of automation. A higher percentage of the advantaged Spanish-American and Indian students marked the item "don't know" than did the advantaged Anglo students, and a higher percentage of the Anglo advantaged students indicated that office job opportunities were not decreasing than did the advantaged Spanish-American and Indian students. The three groups of advantaged students differed at the .01 level of significance in their responses to the item stating that a person would be expected to wear jewelry in the office. A higher percentage of the Spanish-American and Anglo advantaged students indicated a person would not be expected to wear jewelry in an office than did the advantaged Indian students, who tended frequently to mark the item with a "don't know" response. The three cultural groups of advantaged students did not differ significantly on any of the other items in the category of office job expectations.

When the responses of the disadvantaged Spanish-American, Indian, and Anglo students were compared, the groups differed significantly at the .01 level on the item relating to job opportunities in office work decreasing because of automation. A higher percentage of the disadvantaged Spanish-American and Indian students marked the item "don't

TABLE 36. SPANISH-AMERICAN, INDIAN AND ANGLO STUDENTS' PERCEPTIONS OF JOB EXPECTATIONS BASED ON CHI-SQUARE ANALYSIS WITHIN ADVANTAGED AND DISADVANTAGED GROUPS

Item No.	Item	Spanish-American, Indian, Anglo Advantaged	Spanish-American, Indian, Anglo Disadvantaged
4.	Job opportunities in office work are decreasing because of automation.	14.35**	16.18**
9.	Most office workers use a lot of make-up, perfume, and deodorant.	7.43	9.01
14.	You would accept someone correcting you if you used "it don't" instead of "it doesn't."	2.06	7 74
19.	Out-of-style clothes are all right in an office as long as they are clean.	1.26	2.61
24.	You would not demand better pay if you had more education than your co-workers.	6.06	13.88**
29.	You would not work in an office where you were required to join a union.	2.94	6.58
34.	It would be annoying to others if you had eaten onions and other highly spiced foods before going to the office.	3.83	13.45**
39.	It is just as important for an office worker to get along with others as it is to be efficient.	5.11	8.13
44.	Office workers usually wear bright colored clothes to make the office more cheerful.	3.20	13.11*
49.	You would be expected to wear jewelry in the office.	14.40**	17.29**

*Significant at .05 level of confidence.
**Significant at .01 level of confidence.

know" than did the disadvantaged Anglo students who indicated that they thought office jobs were decreasing because of automation. The three groups differed at the .01 level of significance on the statement relating to a person's demanding better pay if she had more education than her co-workers. A higher percentage of the disadvantaged Spanish-American and Anglo students indicated they would demand better pay if they had more education than their co-workers, while the disadvantaged Indian students indicated they would not demand more pay than their co-workers, even though they had more education. The responses of the three groups of disadvantaged students differed at the .01 level of significance on the item stating that it would be annoying to others if a person had eaten onions and other highly spiced foods before going to the office. A higher percentage of the disadvantaged Spanish-American and Anglo students than Indian students believed it would be annoying to others if a person had eaten onions and other highly spiced foods before going to the office. The three groups of disadvantaged students differed at the .01 level of significance on the item stating that one would be expected to wear jewelry in the office. A higher percentage of the disadvantaged Spanish-American and Anglo students did not believe a person would be expected to wear jewelry in an office than did the Indian disadvantaged students who marked this item with a "don't know" response more frequently. The three groups of disadvantaged students did not differ significantly on any of the other items in the category of job expectations.

Table 37 indicates the comparisons of students' perceptions of discrimination based on chi-square analyses of the responses of Spanish-American, Indian, and Anglo students within advantaged and disadvantaged

TABLE 37. SPANISH-AMERICAN, INDIAN AND ANGLO STUDENTS' PERCEPTIONS OF DISCRIMINATION BASED ON CHI-SQUARE ANALYSIS WITHIN ADVANTAGED AND DISADVANTAGED GROUPS

Item No.	Item	Spanish-American, Indian, Anglo Advantaged	Spanish-American, Indian, Anglo Disadvantaged
5.	You would not avoid sitting next to someone from a minority group at work.	11.57*	36.16**
10.	You would not take orders from a person from a minority group at work.	8.94	33.15**
15.	You would not share a ride with a person from a minority group while going to work in a private car.	13.85**	18.43**
20.	You would not take a coffee break with someone from a minority group.	7.85	21.14**
25.	If you accidentally left your money at home, you would ask someone from a minority group to lend you lunch money.	4.44	6.75
30.	Your religious beliefs are important in determining the kind of office in which you would work.	15.38**	63.34**
35.	A person's color might cause him to be looked down upon by fellow office workers.	1.63	68.87**
40.	A Negro, Indian, or Spanish-named supervisor would treat other office workers fairly.	7.35	19.72**
45.	One's religion should not be important in determining what is demanded on the job.	5.58	24.89**
50.	Members of some minority groups cannot get and keep a job in an office.	2.64	15.57**

*Significant at .05 level of confidence.
**Significant at .01 level of confidence.

groups. When the responses of the advantaged Spanish-American, Indian, and Anglo students were compared, the groups differed at the .05 level of significance on the item regarding a person's being seated next to someone from a minority group at work. A higher percentage of the advantaged Indian and Anglo students indicated they would not avoid sitting next to someone from a minority group at work than did the advantaged Spanish-American students. The three groups of advantaged students differed at the .01 level of significance on the item referring to sharing a ride with a person from a minority group while going to work in a private car. A higher percentage of the advantaged Spanish-American and Anglo students than Indian students indicated they would share a ride with a person from a minority group while going to work in a private car. On the item pertaining to one's religious beliefs being important in determining the kind of office in which she would work, the responses of the three groups differed at the .01 level of significance. A higher percentage of the advantaged Spanish-American and Indian students indicated that their religious beliefs were not important in determining the kind of office in which they would work than did the advantaged Anglo students. The three advantaged cultural groups did not differ significantly on any of the other items relating to discrimination.

When the responses of the disadvantaged Spanish-American, Indian, and Anglo students were compared, the three groups differed significantly on nine of the ten items relating to discrimination. The three groups differed at the .01 level of significance on the item regarding a person's being seated next to someone from a minority group at work.

A higher percentage of the Spanish-American and Anglo disadvantaged students indicated they would not avoid sitting next to someone from a minority group at work than did the disadvantaged Indian students. The three groups differed at the .01 level of significance on the statement pertaining to taking orders from a person of a minority group at work. A higher percentage of the disadvantaged Spanish-American and Anglo students indicated they would take orders from a person of a minority group at work than did the disadvantaged Indian students. The three groups of disadvantaged students differed at the .01 level of significance in their responses to the item regarding sharing a ride with a person from a minority group while going to work in a private car. A higher percentage of the disadvantaged Spanish-American and Anglo students would share a ride under those conditions than would the disadvantaged Indian students. The responses of the three groups differed at the .01 level of significance on the item pertaining to taking a coffee break with someone from a minority group. A higher percentage of the Spanish-American and Anglo students indicated they would take a coffee break with someone from a minority group than did the disadvantaged Indian students. A difference significant at the .01 level was evident on the statement pertaining to one's religious beliefs' being important in determining the kind of office in which she would work when these same groups of students were compared. A higher percentage of the disadvantaged Spanish-American and Indian than Anglo students did not think that their religious beliefs were important in this situation. The three groups differed at the .01 level of significance on the statement regarding a person's color causing him to be looked down upon by fellow office workers. A high percentage of the Spanish-American students did not think that a person's color would cause him to be looked down upon by fellow office workers, while a high percentage of the Indians responded with a "don't know" to the statement. A high percentage of the Anglo students thought that a person's color might cause him to be looked down upon by fellow office workers. The responses of the three groups of disadvantaged students differed at the .01 level of significance on the statement pertaining to a Negro, Indian, or Spanish-named supervisor's treating other office workers fairly. A higher percentage of the disadvantaged Anglo than Spanish-American and Indians did not think a Negro, Indian, or Spanish-named supervisor would treat other office workers fairly. The disadvantaged students in the three cultural groups differed at the .01 level of significance in their responses to the item relating to members of some minority groups not being able to get and keep a job in an office. A higher percentage of the disadvantaged Spanish-American and Anglo than Indian students believed that members of some minority groups can get and keep a job in an office. The Indian students marked the item "don't know" more frequently than did the other two groups. The three cultural groups of disadvantaged students indicated no significant difference in their responses to the item pertaining to a person's borrowing money from a member of a minority group if she accidentally left her lunch money at home.

Table 38 contains an analysis of variance test of significance of perceptions of office work based on a comparison between advantaged Spanish-American, Indian, and Anglo students. The groups of students were in agreement in all categories of statements except job expectations, where they differed significantly. The group showing the highest mean score was in closer agreement with the office employees than the groups showing the lower mean scores.

TABLE 38. ANALYSIS OF VARIANCE TEST OF SIGNIFICANCE OF PERCEPTIONS OF OFFICE WORK BASED ON A COMPARISON BETWEEN ADVANTAGED SPANISH-AMERICAN, INDIAN AND ANGLO STUDENTS

	Spanish-American (N=21)		Indian (N=12)		Anglo (N=435)		
Category	Mean	S.D.	Mean	S.D.	Mean	S.D.	F 2,465
Job Prerequisites	22.95	2.85	22.83	2.76	23.36	2.87	0.378
Rewards of the Job	19.62	4.06	19.50	2.75	20.44	4.08	0.707
Personal Relationships	23.48	2.34	21.75	1.82	22.69	3.41	1.054
Job Expectations	23.81	2.79	20.83	2.89	23.35	3.04	4.326*
Discrimination	24.33	3.99	21.50	3.39	23.81	3.63	2.602

*Significant at the .05 level of confidence.

Table 39 indicates the analysis of variance test of significance of perceptions of office work based on a comparison between disadvantaged Spanish-American, Indian, and Anglo students. All categories except job prerequisites revealed a highly significant difference in the perceptions of these groups. There was no difference indicated in the category of job prerequisites. The group showing the highest mean score was in closer agreement with the office employees than were the groups with the lower mean scores.

The previous five chi-square tables indicated some significant differences in the items. Most of the differences were noted within the disadvantaged groups of students. The analysis of variance tables indicate that only one significant category was revealed in the comparisons of advantaged students, while four of the five categories of statements showed a highly significant difference when the disadvantaged students were compared.

TABLE 39. ANALYSIS OF VARIANCE TEST OF SIGNIFICANCE OF PERCEPTIONS OF OFFICE WORK BASED ON A COMPARISON BETWEEN DISADVANTAGED SPANISH-AMERICAN, INDIAN, AND ANGLO STUDENTS

	Spanish-American (N=136)		Indian (N=42)		Anglo (N=269)		
Category	Mean	S.D.	Mean	S.D.	Mean	S.D.	F 2,444
Job Prerequisites	23.32	2.44	22.55	2.84	23.34	3.20	1.356
Rewards of the Job	19.39	3.95	18.45	3.77	20.96	4.33	10.638**
Personal Relationships	22.54	3.33	20.21	3.23	23.26	3.30	15.908**
Job Expectations	23.74	2.81	22.02	3.16	23.74	3.09	6.121**
Discrimination	24.70	3.33	20.60	4.03	24.26	3.51	23.171**

**Significant at the .01 level of confidence.

Comparisons of Eleventh Grade Advantaged-Disadvantaged; Twelfth Grade Advantaged-Disadvantaged

Table 40 contains the comparisons of eleventh and twelfth grade students' perceptions of job prerequisites for office work based on chi-square analyses of responses between advantaged and disadvantaged groups. When the eleventh grade advantaged students were compared with the eleventh grade disadvantaged students, there were no significant differences in their responses pertaining to job prerequisites.

The twelfth grade advantaged students differed at the .01 level of significance with the twelfth grade disadvantaged students in their responses to the item relating to being overweight or extremely underweight affecting one's chances for obtaining an office job. A high

TABLE 40. ELEVENTH AND TWELFTH GRADE STUDENTS' PERCEPTIONS OF JOB PREREQUISITES FOR OFFICE WORK BASED ON CHI-SQUARE ANALYSIS WITHIN ADVANTAGED AND DISADVANTAGED GROUPS

Item No.	Item	Eleventh Advantaged with Eleventh Disadvantaged	Twelfth Advantaged with Twelfth Disadvantaged
1.	Typewriting is a requirement for getting a job in an office.	.59	1.96
6.	A person can get a job in an office without a high school diploma.	2.03	1.56
11.	Office workers frequently must return to school to learn about new equipment and office procedures.	1.42	3.38
16.	People who work in offices wear expensive clothes.	2.23	.02
21.	Most office jobs today require a shorthand skill of at least 100 words per minute.	1.06	3.63
26.	Being overweight or extremely underweight does not limit your chances of obtaining an office job.	2.87	11.20**
31.	If you worked in an office, you would not have to take a bath every day.	4.33	.13
36.	Most office workers must know how to file.	1.14	5.83
41.	Office workers must know bookkeeping to get a job.	.50	7.16*
46.	You cannot expect to get an office job with a large company right after you finish high school.	.88	5.87

*Significant at .05 level of confidence.
**Significant at .01 level of confidence.

percentage of the advantaged students thought that being overweight or extremely underweight did affect one's chances of obtaining office employment; whereas, a high percentage of the disadvantaged students did not think this to be true. The two groups of twelfth grade students differed at the .05 level of significance on the statement regarding office workers having to know bookkeeping to get a job. A higher percentage of the advantaged than the disadvantaged students believed that office workers must know bookkeeping to get a job. The two groups of twelfth grade students did not differ significantly on any of the other items relating to job prerequisites.

Table 41 indicates the comparisons of eleventh and twelfth grade students' perceptions of rewards of the job in office work based on chi-square analyses of responses between advantaged and disadvantaged groups. A difference at the .05 level of significance was noted in the students' responses to the statement regarding office workers not making as much money as factory workers when the eleventh grade advantaged students were compared with the eleventh grade disadvantaged students. A higher percentage of the advantaged than disadvantaged students indicated that office workers do make as much money as factory workers. The two groups of eleventh grade students differed at the .01 level of significance on the item concerning women office workers' usually making the same salary as men office workers. The advantaged students marked the item "don't know" a higher percentage of the time than did the disadvantaged students. The eleventh grade advantaged and eleventh grade disadvantaged students did not differ significantly in their responses to the remaining items in the category of rewards of the job.

TABLE 41. ELEVENTH AND TWELFTH GRADE STUDENTS' PERCEPTIONS OF REWARDS OF THE JOB IN AN OFFICE BASED ON CHI-SQUARE ANALYSIS WITHIN ADVANTAGED AND DISADVANTAGED GROUPS

Item No.	Item	Eleventh Advantaged with Eleventh Disadvantaged	Twelfth Advantaged with Twelfth Disadvantaged
2.	Office workers do not make as much money as factory workers.	7.88*	3.52
7.	Office workers are more socially accepted than workers who get their clothes dirty or greasy.	2.73	7.29*
12.	If you worked in an office, you could make as much money as your father, mother, or guardian.	3.37	4.54
17.	Some companies pay for office worker's health and life insurance.	.81	.93
22.	Office workers are respected more than other workers in the same business or industry.	.97	.46
27.	Office workers are usually invited to more parties and social functions than other workers.	3.39	2.81
32.	Women office workers usually make the same salary as men office workers.	14.60**	12.67**
37.	Office workers have a better chance for advancement than other workers.	3.92	5.12
42.	Office workers work fewer hours than others in business and industry.	4.02	1.47
47.	Office workers are more likely to have steady work than factory workers.	2.38	4.85

*Significant at .05 level of confidence.
**Significant at .01 level of confidence.

When the twelfth grade advantaged students were compared with the twelfth grade disadvantaged students, the responses of the two groups differed at the .05 level of significance on whether office workers were more socially accepted than workers who got their clothes dirty or greasy. A high percentage of the advantaged students thought that office workers were more socially accepted than workers who got their clothes dirty or greasy, while a high percentage of the disadvantaged students did not think this to be true. The two groups of twelfth grade students differed in their perceptions of the item pertaining to women office workers' usually making the same salary as men office workers. The difference was significant at the .01 level. A higher percentage of the disadvantaged rather than the advantaged twelfth grade students thought that women office workers do make as much money as men office workers. The two groups of twelfth grade students did not differ significantly on any of the other items in the category of rewards of the job.

Table 42 contains a comparison of eleventh and twelfth grade students' perceptions of personal relationships in the office based on chi-square analyses of responses between advantaged and disadvantaged groups. When the responses of eleventh grade advantaged students were compared with the responses of eleventh grade disadvantaged students, the two groups differed at the .05 level of significance on the item relating to talking over a personal problem with an office supervisor. A higher percentage of the disadvantaged students indicated they would talk their personal problems over with an office supervisor than did the advantaged students. The eleventh grade advantaged and disadvantaged

TABLE 42. ELEVENTH AND TWELFTH GRADE STUDENTS' PERCEPTIONS OF PERSONAL RELATIONSHIPS IN THE OFFICE BASED ON CHI-SQUARE ANALYSIS WITHIN ADVANTAGED AND DISADVANTAGED GROUPS

Item No.	Item	Eleventh Advantaged with Eleventh Disadvantaged	Twelfth Advantaged with Twelfth Disadvantaged
3.	It would disturb you to have your office supervisor check your work closely.	.11	1.19
8.	You could not accept criticism from your office supervisor when he is angry.	.56	1.77
13.	The city is not a healthy place to live and do office work.	4.60	.13
18.	Office workers enjoy working in offices in large cities.	2.95	.55
23.	If your office supervisor asked you for a date, you should accept.	1.38	2.72
28.	If you have a personal problem, you would talk it over with your supervisor in an office.	8.47*	5.16
33.	An office worker will invite the boss to eat lunch with her.	2.61	4.02
38.	Women do not make good office supervisors.	.87	8.80*
43.	Office workers who are not friendly with their supervisors will not get promotions.	.23	3.85
48.	In offices where customers appear daily, it should be the attitude of the office workers that the customer is always right.	4.39	12.30**

*Significant at .05 level of confidence.
**Significant at .01 level of confidence.

students did not differ significantly on any of the other items in the category of personal relationships.

The responses of the twelfth grade advantaged students differed with the responses of twelfth grade disadvantaged students at the .05 level of significance on whether women make good office supervisors. A higher percentage of the disadvantaged twelfth grade students did not think women make good office supervisors than did the advantaged twelfth grade students. The two groups of students differed at the .01 level of significance on the item stating that it should be the attitude of the office workers that customers are always right. A higher percentage of the advantaged than of the disadvantaged students believed that in offices where customers appear daily it should be the attitude of the office workers that the customer is always right. The two groups of twelfth grade students did not differ significantly in their responses to the remaining items in the category of personal relationships.

Table 43 contains the comparisons of eleventh and twelfth grade students' perceptions of office job expectations based on chi-square analyses of responses between advantaged and disadvantaged groups. When the eleventh grade advantaged students were compared with the eleventh grade disadvantaged students, the two groups differed at the .05 level of significance on whether job opportunities in office work are decreasing because of automation. A higher percentage of the disadvantaged than of the advantaged eleventh grade students indicated they did not know whether office jobs were decreasing because of automation. The two groups of eleventh grade students differed at the .05

TABLE 43. ELEVENTH AND TWELFTH GRADE STUDENTS' PERCEPTIONS OF JOB EXPECTATIONS IN THE OFFICE BASED ON CHI-SQUARE ANALYSIS WITHIN ADVANTAGED AND DISADVANTAGED GROUPS

Item No.	Item	Eleventh Advantaged with Eleventh Disadvantaged	Twelfth Advantaged with Twelfth Disadvantaged
4.	Job opportunities in office work are decreasing because of automation.	6.13*	5.02
9.	Most office workers use a lot of make-up, perfume, and deodorant.	1.15	3.62
14.	You would accept someone correcting you if you used "it don't" instead of "it doesn't."	.90	.26
19.	Out-of-style clothes are all right in an office as long as they are clean.	6.19*	9.48**
24.	You would not demand better pay if you had more education than your co-workers.	2.78	4.74
29.	You would not work in an office where you were required to join a union.	4.06	3.16
34.	It would be annoying to others if you had eaten onions and other highly spiced foods before going to the office.	2.86	1.16
39.	It is just as important for an office worker to get along with others as it is to be efficient.	.44	2.91
44.	Office workers usually wear bright colored clothes to make the office more cheerful.	5.75	8.61
49.	You would be expected to wear jewelry in the office.	3.37	2.47

*Significant at .05 level of confidence.
**Significant at .01 level of confidence.

level of significance in their perceptions of whether out-of-style clothes are all right in an office as long as they are clean. A higher percentage of the disadvantaged than of the advantaged students thought that out-of-style clothes were all right in an office as long as they were clean. They did not differ significantly on any of the other items in the category of job expectations.

The responses of twelfth grade advantaged students differed at the .05 level of significance with the responses of twelfth grade disadvantaged students on the item relating to out-of-style clothes being all right in an office as long as they are clean. A higher percentage of the disadvantaged than of the advantaged students thought that out-of-style clothes were all right in an office as long as they were clean. The two groups of twelfth grade students differed at the .05 level of significance on the item relating to office workers' usually wearing bright-colored clothes in an office to make it more cheerful. A higher percentage of the disadvantaged than of the advantaged students did not believe that office workers usually wear bright-colored clothes to make the office more cheerful. The twelfth grade advantaged and disadvantaged students did not differ significantly in their perceptions of job expectations on the remaining items in that category.

Table 44 indicates a comparison of eleventh and twelfth grade students' perceptions of discrimination in office work based on chi-square analyses of responses between advantaged and disadvantaged groups. The responses of the eleventh grade advantaged students differed at the .01 level of significance with the responses of the

TABLE 44. ELEVENTH AND TWELFTH GRADE STUDENTS' PERCEPTIONS OF DISCRIMINATION IN OFFICE WORK BASED ON CHI-SQUARE ANALYSIS WITHIN ADVANTAGED AND DISADVANTAGED GROUPS

Item No.	Item	Eleventh Advantaged with Eleventh Disadvantaged	Twelfth Advantaged with Twelfth Disadvantaged
5.	You would not avoid sitting next to someone from a minority group at work.	5.42	3.60
10.	You would not take orders from a person from a minority group at work.	2.11	3.34
15.	You would not share a ride with a person from a minority group while going to work in a private car.	11.71**	1.03
20.	You would not take a coffee break with someone from a minority group.	1.07	.04
25.	If you accidentally left your money at home, you would ask someone from a minority group to lend you lunch money.	.74	2.62
30.	Your religious beliefs are important in determining the kind of office in which you would work.	1.94	.06
35.	A person's color might cause him to be looked down upon by fellow office workers.	2.51	2.13
40.	A Negro, Indian, or Spanish-named supervisor would treat other office workers fairly.	16.99**	3.63
45.	One's religion should not be important in determining what is demanded on the job.	13.34**	.26
50.	Members of some minority groups cannot get and keep a job in an office.	2.44	2.80

**Significant at .01 level of confidence.

eleventh grade disadvantaged students on the statement pertaining to sharing a ride with a person from a minority group while going to work in a private car. A larger percentage of the advantaged students marked the item "don't know" than did the disadvantaged students. The two groups differed at the .01 level of significance on the item relating to a Negro, Indian, or Spanish-named supervisor's treating other office workers fairly. A higher percentage of the disadvantaged than of the advantaged eleventh grade students thought that a Negro, Indian, or Spanish-named supervisor would treat others fairly in the office. The two groups of eleventh grade students differed at the .01 level of significance on the item about one's religion being important in determining what is demanded on the job. A higher percentage of the eleventh grade disadvantaged than of the advantaged students thought that one's religion should be important in determining what is demanded on the job. The eleventh grade advantaged students did not differ significantly with the eleventh grade disadvantaged students on the items in the category relating to discrimination in the office. The responses of the twelfth grade advantaged students did not differ significantly with the responses of the twelfth grade disadvantaged students on any of the items relating to discrimination in the office.

Table 45 indicates the analysis of variance test of significance of perceptions of office work based on a comparison between advantaged eleventh-grade students and disadvantaged eleventh-grade students. There were no significant differences noted in any of the categories of statements between the advantaged and disadvantaged students. The groups with the highest mean scores in each category are more closely in agreement with office workers' perceptions of office work than the group with the lower mean scores.

TABLE 45. ANALYSIS OF VARIANCE TEST OF SIGNIFICANCE OF PERCEPTIONS OF OFFICE WORK BASED ON A COMPARISON BETWEEN ADVANTAGED ELEVENTH-GRADE STUDENTS AND DISADVANTAGED ELEVENTH-GRADE STUDENTS

	Advantaged (N=422)		Disadvantaged (N=413)		
Category	Mean	S.D.	Mean	S.D.	F 2,833
Job Prerequisites	23.25	2.84	23.11	3.03	.457
Rewards of the Job	20.29	4.01	20.18	4.15	.158
Personal Relationships	22.62	3.38	22.65	3.44	.022
Job Expectations	23.26	3.03	23.42	3.03	.587
Discrimination	23.80	3.66	24.11	3.67	1.546

Table 46 contains the analysis of variance test of significance of perceptions of office work based on a comparison between advantaged twelfth-grade students and disadvantaged twelfth-grade students. There were no significant differences noted in any of the categories of statements between the advantaged and disadvantaged students. The group with the highest mean score in each category was more closely in agreement with the perceptions of office workers.

There were relatively few significant differences noted in the chi-square item analysis, and none tended to indicate a pattern of differences. No categories in the analysis of variance test of significance revealed any statistical differences in the groups compared.

TABLE 46. ANALYSIS OF VARIANCE TEST OF SIGNIFICANCE OF PERCEPTIONS OF OFFICE WORK BASED ON A COMPARISON BETWEEN ADVANTAGED TWELFTH-GRADE STUDENTS AND DISADVANTAGED TWELFTH-GRADE STUDENTS

	Advantaged (N=42)		Disadvantaged (N=41)		
Category	Mean	S.D.	Mean	S.D.	F 2,81
Job Prerequisites	24.29	2.76	24.10	3.06	.087
Rewards of the Job	21.17	3.93	21.61	4.97	.203
Personal Relationships	23.79	3.04	24.05	2.53	.183
Job Expectations	24.07	2.67	24.85	3.03	1.558
Discrimination	23.86	3.74	24.02	3.97	.039

Group Comparisons Based on Experience in Typewriting

Table 47 contains advantaged and disadvantaged students' job prerequisite perceptions during and after completion of beginning typewriting as based on chi-square analysis. In a comparison of the advantaged students who had taken beginning typewriting with the advantaged students who were currently enrolled, a difference was found at the .01 level of significance on the item relating to office workers' frequently having to return to school to learn about new equipment and office procedures. More than half of the students enrolled in beginning typewriting marked "don't know" as their response to this item; whereas, the students who had completed beginning typewriting felt that office employees did have to return to school to learn about new equipment and procedures. The two groups of advantaged students differed at the .05 level of significance on their responses to the item relating to people wearing expensive clothes in offices. Students currently enrolled in beginning typewriting marked "don't know" as their response to this item, while a high percentage of the students who had taken beginning

TABLE 47. ADVANTAGED AND DISADVANTAGED STUDENTS' JOB PREREQUISITE PERCEPTIONS DURING AND AFTER COMPLETION OF BEGINNING TYPEWRITING BASED ON CHI-SQUARE ANALYSIS

Item No.	Item	Yes-No Advantaged	Yes-No Disadvantaged
1.	Typewriting is a requirement for getting a job in an office.	.05	.92
6.	A person can get a job in an office without a high school diploma.	4.14	.87
11.	Office workers frequently must return to school to learn about new equipment and office procedures.	11.19**	.68
16.	People who work in offices wear expensive clothes.	9.08*	1.66
21.	Most office jobs today require a shorthand skill of at least 100 words per minute.	4.63	.52
26.	Being overweight or extremely underweight does not limit your chances of obtaining an office job.	.46	.10
31.	If you worked in an office, you would not have to take a bath every day.	4.12	.19
36.	Most office workers must know how to file.	2.21	1.54
41.	Office workers must know bookkeeping to get a job.	1.04	4.09
46.	You cannot expect to get an office job with a large company right after you finish high school.	2.34	4.78

*Significant at .05 level of confidence.
**Significant at .01 level of confidence.

typewriting did not believe that office workers wear expensive clothes in the office. The two groups of advantaged students agreed on all other statements pertaining to office job prerequisites. There were no significant differences in the perceptions of the disadvantaged students about office job prerequisites when they were compared on the basis of whether they had taken beginning typewriting or were currently enrolled in beginning typewriting.

Table 48 indicates a comparison between perceptions of students who were taking beginning typewriting and students who had taken beginning typewriting as to rewards of the job based on chi-square analyses within advantaged and disadvantaged groups. A difference significant at the .01 level was noted in the responses of the advantaged students who had taken a year of beginning typewriting when compared with the advantaged students who were currently enrolled on the item relative to office workers working fewer hours than others in business and industry. A higher percentage of the advantaged students who had taken a year of beginning typewriting marked this statement "false," as compared with the students who were currently enrolled in beginning typewriting. Almost fifty percent of the students currently enrolled in beginning typewriting marked this item with a "don't know" response. The two groups of advantaged students were in agreement on the other nine items in the category of rewards of the job.

The disadvantaged students who had taken a year of beginning typewriting, when compared with such students currently enrolled, differed in their responses to the item describing office workers' not making as much money as factory workers. The difference was significant

TABLE 48. ADVANTAGED AND DISADVANTAGED STUDENTS' PERCEPTIONS OF REWARDS OF THE OFFICE JOB DURING AND AFTER COMPLETION OF BEGINNING TYPEWRITING AS BASED ON CHI-SQUARE ANALYSIS

Item No.	Item	Yes-No Advantaged	Yes-No Disadvantaged
2.	Office workers do not make as much money as factory workers.	2.71	14.46**
7.	Office workers are more socially accepted than workers who get their clothes dirty or greasy.	.42	8.05*
12.	If you worked in an office, you could make as much money as your father, mother, or guardian.	1.19	3.22
17.	Some companies pay for office worker's health and life insurance.	1.67	1.33
22.	Office workers are respected more than other workers in the same business or industry.	2.87	.45
27.	Office workers are usually invited to more parties and social functions than other workers.	2.81	.39
32.	Women office workers usually make the same salary as men office workers.	1.45	5.76
37.	Office workers have a better chance for advancement than other workers.	.68	8.02*
42.	Office workers work fewer hours than others in business and industry.	16.49**	3.10
47.	Office workers are more likely to have steady work than factory workers.	1.48	4.74

*Significant at .05 level of confidence.
**Significant at .01 level of confidence.

at the .01 level. A larger percentage of the disadvantaged students who had taken a year of beginning typewriting than those who had not thought that office workers did make as much money as factory workers. The two groups of disadvantaged students differed at the .05 level of significance in their responses to the item relating to office workers' being more socially accepted than workers who get their clothes dirty or greasy. A higher percentage of the disadvantaged students who were currently enrolled in beginning typewriting marked this statement "don't know" than did those who had taken a year of beginning typewriting. The two groups of disadvantaged students also differed at the .05 level of significance on the item involving office workers' having a better chance for advancement than other workers. Students currently enrolled in beginning typewriting indicated a "don't know" response to this statement with a greater frequency than did the students who had completed beginning typewriting. The two groups of disadvantaged students were in agreement on their office job reward perceptions on the remaining statements in this category.

Table 49 indicates a comparison between personal relationship perceptions of students who were taking beginning typewriting and students who had taken beginning typewriting based on chi-square analyses. The advantaged students who had taken a year of beginning typewriting differed at the .01 level of significance with the advantaged students who were currently taking beginning typewriting based on a comparison between their responses to the item relative to being disturbed if an office supervisor checked their work closely. Fifty percent of those students currently enrolled in beginning typewriting

TABLE 49. ADVANTAGED AND DISADVANTAGED STUDENTS' PERCEPTIONS OF PERSONAL RELATIONSHIPS IN THE OFFICE DURING AND AFTER COMPLETION OF BEGINNING TYPEWRITING BASED ON CHI-SQUARE ANALYSIS

Item No.	Item	Yes-No Advantaged	Yes-No Disadvantaged
3.	It would disturb you to have your office supervisor check your work closely.	15.10**	1.64
8.	You could not accept criticism from your office supervisor when he is angry.	3.58	1.19
13.	The city is not a healthy place to live and do office work.	5.44	.82
18.	Office workers enjoy working in offices in large cities.	1.39	.12
23.	If your office supervisor asked you for a date, you should accept.	.42	3.30
28.	If you have a personal problem, you would talk it over with your supervisor in an office.	.57	.73
33.	An office worker will invite the boss to eat lunch with her.	1.79	8.73*
38.	Women do not make good office supervisors.	2.03	3.88
43.	Office workers who are not friendly with their supervisors will not get promotions.	.73	4.90
48.	In offices where customers appear daily, it should be the attitude of the office workers that the customer is always right.	8.20*	2.77

*Significant at .05 level of confidence.
**Significant at .01 level of confidence.

felt that it would be disturbing to have an office supervisor check their work closely, while more than fifty percent of those who had taken a year of beginning typewriting did not think that close supervision would bother them. The responses of the two groups of advantaged students differed at the .05 level of significance on the item pertaining to office workers' thinking that the customer is always right. A higher percentage of advantaged than disadvantaged students currently enrolled in beginning typewriting did not think that the customer was always right. The two groups of advantaged students were in agreement on the remaining items relating to personal relationships in the office.

The responses of disadvantaged students who had taken beginning typewriting differed significantly from the responses of the disadvantaged students currently enrolled in beginning typewriting in their perceptions of an office worker's inviting the boss to eat lunch with her. The difference was significant at the .05 level. A higher percentage of the disadvantaged students currently enrolled marked this statement "don't know" than did the disadvantaged students who had taken a year of beginning typewriting. More than fifty percent of the experienced typists would not invite the boss to lunch. The two groups of disadvantaged students were in agreement on the remaining items which measured their perceptions of personal relationships in the office.

Table 50 indicates a comparison of the job reward perceptions of students who were taking beginning typewriting and students who had completed beginning typewriting as based on chi-square analyses within

TABLE 50. ADVANTAGED AND DISADVANTAGED STUDENTS' PERCEPTIONS OF JOB EXPECTATION IN THE OFFICE DURING AND AFTER COMPLETION OF BEGINNING TYPEWRITING BASED ON CHI-SQUARE ANALYSIS

Item No.	Item	Yes-No Advantaged	Yes-No Disadvantaged
4.	Job opportunities in office work are decreasing because of automation.	6.93*	9.87**
9.	Most office workers use a lot of make-up, perfume, and deodorant.	8.31*	2.94
14.	You would accept someone correcting you if you used "it don't" instead of "it doesn't."	1.65	.84
19.	Out-of-style clothes are all right in an office as long as they are clean.	5.37	3.36
24.	You would not demand better pay if you had more education than your co-workers.	.85	8.69*
29.	You would not work in an office where you were required to join a union.	2.82	16.60**
34.	It would be annoying to others if you had eaten onions and other highly spiced foods before going to the office.	.71	1.01
39.	It is just as important for an office worker to get along with others as it is to be efficient.	5.71	11.39**
44.	Office workers usually wear bright colored clothes to make the office more cheerful.	9.78**	2.02
49.	You would be expected to wear jewelry in the office.	3.94	.53

*Significant at .05 level of confidence.
**Significant at .01 level of confidence.

advantaged and disadvantaged groups. Advantaged students who had taken a year of beginning typewriting differed in their perceptions at the .05 level of significance with advantaged students who were currently enrolled on the items regarding opportunities in office work decreasing because of automation and about office workers' using a lot of make-up, perfume, and deodorant. On both items the advantaged students who were currently enrolled, as compared with those who had completed, marked "don't know" as their response to a higher percentage of the items. The two groups differed at the .01 level of significance on their responses to the statement pertaining to office workers' usually wearing bright-colored clothes to make the office more cheerful. The advantaged students who were currently enrolled had a higher percentage of "don't know" responses to this item than did the comparable students who had taken a year of beginning typewriting. The two groups were in agreement on the other items in the category of job expectations.

The responses of disadvantaged students who had taken a year of beginning typewriting differed at the .01 level of significance when compared with the responses of the disadvantaged students who were currently enrolled in this course. All three of the items: "Job opportunities in office work are decreasing because of automation"; "You would not work in an office where you were required to join a union"; and "It is just as important for an office worker to get along with others as it is to be efficient" were marked "don't know" a higher percentage of the time by the disadvantaged students who were currently enrolled in beginning typewriting than by the disadvantaged students who had taken a year of beginning typewriting. The two groups of disadvantaged students differed at the .05 level of significance on the matter of demanding better pay for more education than their co-workers. The disadvantaged students who had taken a year of beginning typewriting when compared with similar current enrollees marked the item "false" a higher percentage of the time. The two groups of disadvantaged students were in agreement on their perceptions of rewards of the job in an office on the other items in the category.

Table 51 indicates a comparison of the perceptions of discrimination of students who were taking beginning typewriting and students who had completed beginning typewriting as based on chi-square analyses within advantaged and disadvantaged groups. The advantaged students who had taken a year of beginning typewriting were in agreement with the advantaged students who were currently enrolled on all of the items relating to discrimination in the office. The two groups of disadvantaged students differed at the .05 level of significance on two items: "You would not take orders from a person of a minority group at work," and "Your religious beliefs are important in determining the kind of office in which you would work." A higher percentage of the disadvantaged students who had taken beginning typewriting indicated that they would take orders from a person of a minority group than did the disadvantaged students who were currently enrolled in beginning typewriting. Also, a greater percentage thought that their religious beliefs would influence the kind of office in which they would work, as compared with disadvantaged students who had completed the course. The two groups of disadvantaged students were in agreement on their

TABLE 51. ADVANTAGED AND DISADVANTAGED STUDENTS' PERCEPTIONS OF DISCRIMINATION IN THE OFFICE DURING AND AFTER COMPLETION OF BEGINNING TYPEWRITING BASED ON CHI-SQUARE ANALYSIS

Item No.	Item	Yes-No Advantaged	Yes-No Disadvantaged
5.	You would not avoid sitting next to someone from a minority group at work.	1.10	3.97
10.	You would not take orders from a person from a minority group at work.	.87	7.39*
15.	You would not share a ride with a person from a minority group while going to work in a private car.	.51	3.11
20.	You would not take a coffee break with someone from a minority group.	.29	2.73
25.	If you accidentally left your money at home, you would ask someone from a minority group to lend you lunch money.	1.99	4.04
30.	Your religious beliefs are important in determining the kind of office in which you would work.	.93	7.60*
35.	A person's color might cause him to be looked down upon by fellow office workers.	.94	4.25
40.	A Negro, Indian, or Spanish-named supervisor would treat other office workers fairly.	1.48	.67
45.	One's religion should not be important in determining what is demanded on the job.	5.29	1.20
50.	Members of some minority groups cannot get and keep a job in an office.	1.36	3.49

*Significant at .05 level of confidence.

perceptions of discrimination in the office as measured by the other eight items.

Table 52 indicates the analysis of variance test of significance between mean scores of advantaged students who were taking beginning typewriting. The advantaged students who were taking beginning typewriting differed statistically at the .01 level of significance in the category pertaining to job prerequisites. The same two groups of advantaged students differed statistically at the .05 level of significance in the category relating to rewards of the job. The analysis of variance test of significance between the means of the advantaged students who had taken beginning typewriting revealed no significant statistical differences in the perceptions of personal relationships, job expectations, and discrimination. The group showing the highest mean score in each category indicates that their perceptions were more closely correlated to the perceptions of the office employees than were the perceptions of the group with the lower mean score. Only those advantaged students who were taking beginning typewriting or had taken beginning typewriting at the time the data for this study were collected were included in this analysis.

Table 53 contains the analysis of variance test of significance scores between means of advantaged students who were taking beginning typewriting and advantaged students who had taken beginning typewriting. The disadvantaged students who were taking beginning typewriting differed significantly from the disadvantaged students who had taken beginning typewriting in two areas: 1) rewards of the job and 2) personal relationships. The perceptions of the students who had taken beginning

TABLE 52. ANALYSIS OF VARIANCE TEST OF SIGNIFICANCE BETWEEN MEAN SCORES OF ADVANTAGED STUDENTS WHO WERE TAKING BEGINNING TYPEWRITING AND THOSE WHO HAD TAKEN BEGINNING TYPEWRITING

	Were Taking Beginning Typewriting (N=99)		Had Taken Beginning Typewriting (N=346)		
Category	Mean	S.D.	Mean	S.D.	F 1,443
Job Prerequisites	22.67	2.95	23.51	2.83	6.792**
Rewards of the Job	19.55	3.90	15.21	4.00	4.755*
Personal Relationships	22.62	3.55	22.73	3.34	.088
Job Expectations	22.88	2.92	23.46	9.36	2.802
Discrimination	23.55	3.78	23.79	3.63	.340

**Significant at .01 level.
*Significant at .05 level.

TABLE 53. ANALYSIS OF VARIANCE TEST OF SIGNIFICANCE BETWEEN MEAN SCORES OF DISADVANTAGED STUDENTS WITH AVERAGE GRADES WHO WERE TAKING BEGINNING TYPEWRITING AND THOSE WHO HAD TAKEN BEGINNING TYPEWRITING

	Were Taking Beginning Typewriting (N=156)		Had Taken Beginning Typewriting (N=277)		
Category	Mean	S.D.	Mean	S.D.	F 1,431
Job Prerequisites	23.03	2.87	23.29	3.08	.785
Rewards of the Job	19.31	4.25	20.72	4.06	11.641**
Personal Relationships	22.12	3.54	23.01	3.29	7.046**
Job Expectations	23.35	2.85	23.63	3.13	.861
Discrimination	23.74	3.95	24.18	3.61	1.345

**Significant at .01 level.

typewriting were more similar to the perceptions of the office workers than the perceptions of the students taking beginning typewriting. The higher the mean score in each category, the more closely the mean scores were to the mean scores of the office employees. Only the disadvantaged students who were taking beginning typewriting or who had taken beginning typewriting at the time the data for this study were collected were included in this analysis.

Although there were significant differences according to the chi-square item analysis within the groups on some statements in each category, there were no particular categories with a high percentage of significant differences noted. However, in the analysis of variance test of significance, the category of job prerequisites was found to be highly significant, while the category of rewards of the job showed a significant difference in the responses of the advantaged students. The disadvantaged students showed highly significant differences in the categories of rewards of the job and personal relationships. The higher the mean score indicated by these two groups, the more similar were their perceptions to those held by the office workers.

Chapter V

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

Summary

The purpose of this study was to determine the perceptions of advantaged and disadvantaged rural high school girls toward office work. To accomplish this purpose, it was necessary to determine the perceptions that office workers have toward office work, so it might be stated that a secondary objective was to determine, in fact, what office workers believe it is like to work in an office in a city.

A questionnaire was developed with the assistance of a committee of consultants at The Center for Vocational and Technical Education at The Ohio State University and a Research Technician. A pilot study was conducted with thirty-four girls in Las Animas, Colorado, to determine the validity of the instrument; and the questionnaire was revised into final draft form.

Through the cooperation of State Directors of Business and Office Education in Arizona, Colorado, Idaho, New Mexico, Nevada, and Utah, towns were selected in which the study was to be conducted. A Research Technician and the writer visited each school in the six-state region and personally talked with those who were responsible for getting the data desired for this study. Fifty-six rural high schools participated in the study, from which four hundred and ninety-eight advantaged students and four hundred seventy-seven disadvantaged students were selected to fill out a questionnaire.

Office workers were located by paid interviewers, teachers, counselors, and school administrators. The qualification for including office workers in the study was that they must be employed in a large town or city at the time the data for this study was collected and that they must have been graduated from a rural high school no more than three years prior to gathering of this data. Three hundred and twenty-six office workers were included in the study.

The questionnaire was composed of fifty statements that were divided into five categories: 1) job prerequisites, 2) rewards of the job, 3) personal relationships, 4) job expectations, 5) discrimination. A percentage table was computed showing the percentage of response of the office workers, advantaged, and disadvantaged students to each item on the questionnaire. The items were weighted according to the response of the office workers. When the items were grouped into categories, a total of the weights of each item in each category was computed for both office workers and students. On the basis of the sums derived from the weighting, comparisons between various groups were made.

Data from each questionnaire was punched into punch cards for processing in the Colorado State University Computer Center. From the punch card input, chi-square and analysis of variance tests of significance were made between and within the groups to derive the statistical analysis of the data used in the study.

Conclusions

All conclusions made by the researcher are based on the findings from data used in this study. Eighteen null hypotheses were postulated; a statement of each hypothesis tested and a summary of the findings pertaining to each hypothesis is listed below:

Hypothesis 1: There is no difference in the perceptions of office work between advantaged rural high school girls and office employees.

Chi-square item analysis indicated that a very high percentage of the items revealed a highly significant difference in the perceptions of office workers and rural high school girls. The analysis of variance test of significance showed all categories of items to be highly significant when the two groups were compared. Therefore, the null hypothesis was not accepted.

Hypothesis 2: There is no difference in the perceptions of office work between disadvantaged rural high school girls and office employees.

Chi-square item analysis indicated that a very high percentage of the items revealed a highly significant difference in the perceptions of office workers and disadvantaged rural high school girls. The analysis of variance test of significance showed a highly significant difference in all categories of items when the two groups were compared. Consequently, the null hypothesis was not accepted.

Hypothesis 3: There is no difference in the perceptions of office work between advantaged and disadvantaged rural high school girls.

Chi-square item analysis indicated a small number of differences in the perceptions of office work between advantaged and disadvantaged rural high school girls. The analysis of variance test of significance revealed no significant differences in any of the categories of items when these two groups were compared. As a result, the null hypothesis was not rejected.

Hypothesis 4: There is no difference in the perceptions of office work held by advantaged rural high school girls in relation to their interest in office work.

The chi-square item analysis revealed some significant differences in the perceptions of these two groups of students. The analysis of variance test of significance revealed a difference significant at the .05 level of confidence in the category of personal relationships, and a difference significant at the .01 level of confidence in the category of job expectations. Therefore, the null hypothesis was not accepted.

Hypothesis 5: There is no difference in the perceptions of office work held by disadvantaged rural high school girls in relation to their interest in office work.

Chi-square item analysis revealed few significant differences in perceptions of office work when these two groups were compared. The analysis of variance test of significance failed to reveal a significant difference in any of the categories of items. As a result, the null hypothesis was not rejected.

Hypothesis 6: There is no difference in the perceptions of office work between advantaged rural high school girls and disadvantaged rural high school girls when both groups are not interested in office work.

Chi-square item analysis revealed few significant differences when these two groups were compared. The analysis of variance test of significance did not indicate any categories of items that showed any significant differences. Therefore, the null hypothesis was not rejected.

Hypothesis 7: There is no difference in the perceptions of office work between advantaged rural high school girls and disadvantaged rural high school girls when both groups are interested in office work.

Chi-square item analysis revealed few significant differences when these two groups were compared. The analysis of variance test of significance failed to indicate any significant differences in the categories of items in this comparison. Therefore, the null hypothesis was not rejected.

Hypothesis 8: There is no difference in the perceptions of office work between advantaged and disadvantaged rural high school girls reporting good grades.

The chi-square item analysis indicated very few significant differences. The analysis of variance test of significance revealed no significant differences in any of the categories of items. The null hypothesis was not rejected.

Hypothesis 9: There is no difference in the perceptions of office work between advantaged and disadvantaged rural high school girls reporting average grades.

Although there were a few items that showed a significant difference as measured by the chi-square analysis, the percentage was small. The analysis of variance test of significance did not reveal any significant differences in the categories of items. The null hypothesis was not rejected.

Hypothesis 10: There is no difference in perceptions of office work between advantaged and disadvantaged Spanish-American rural high school girls.

The chi-square item analysis revealed very few significant items when the two groups of Spanish-American rural high school girls were compared. There were no categories of items that revealed significant differences in the analysis of variance test of significance. Consequently, the null hypothesis was not rejected.

Hypothesis 11: There is no difference in perceptions of office work between advantaged and disadvantaged Indian rural high school girls.

Chi-square item analysis revealed only one item of significant difference in this comparison. The analysis of variance test of significance did not reveal significant differences in any of the categories of items. Therefore, the null hypothesis was not rejected.

Hypothesis 12: There is no difference in perceptions of office work between advantaged and disadvantaged Anglo rural high school girls.

Chi-square item analysis revealed a significant difference in office perceptions of these two groups on some of the items. The analysis of variance test of significance indicated a difference significant at the .05 level of confidence on the category of items relating to personal relationships. Therefore, the null hypothesis was not accepted.

Hypothesis 13: There is no difference in the perceptions of office work held by advantaged Spanish-American, Indian, and Anglo rural high school girls.

There were some items on which the advantaged Spanish-American, Indian, and Anglo rural high school girls differed significantly on the chi-square item analysis test. The analysis of variance test of significance indicated a difference significant at the .05 level of confidence on the category of items relating to job expectations. Therefore, the null hypothesis was not rejected.

Hypothesis 14: There is no difference in the perceptions of office work held by disadvantaged Spanish-American, Indian, and Anglo rural high school girls.

The chi-square item analysis indicated a high number of items significant at the .05 and .01 levels of confidence. The analysis of variance test of significance revealed a highly significant difference on the categories of items relating to rewards of the job, personal relationships, job expectations, and discrimination. Consequently, the null hypothesis was not accepted.

Hypothesis 15: There is no difference in the perceptions of office work between advantaged and disadvantaged eleventh-grade rural high school girls.

The chi-square item analysis revealed some significant differences in the comparisons of these two groups. However, the analysis of variance test of significance failed to indicate any significant differences in the categories of items compared. Therefore, the null hypothesis was not rejected.

Hypothesis 16: There is no difference in the perceptions of office work between advantaged and disadvantaged twelfth-grade rural high school girls.

Chi-square item analysis revealed few significant differences when these two groups were compared. The analysis of variance test of significance did not indicate significant differences in any of the categories of items. The null hypothesis was not rejected.

Hypothesis 17: There is no difference in the perceptions of office work between advantaged students who had completed beginning typewriting and advantaged students who were taking beginning typewriting.

The chi-square test of significance revealed a small number of differences when these two groups were compared. However, the analysis of variance test of significance indicated a difference significant at the .01 level of confidence on the items in the category of job prerequisites and a difference significant at the .05 level of confidence on the items in the category of rewards of the job. Therefore, the null hypothesis was not accepted.

Hypothesis 18: There is no difference in the perceptions of office work between disadvantaged students who had completed beginning typewriting and advantaged students who were taking beginning typewriting.

The chi-square item analysis indicated significant differences of some of the items in all categories. The analysis of variance test of significance revealed differences significant at the .01 level of confidence in the categories of rewards of the job and personal relationships. The null hypothesis was not rejected.

Recommendations

The findings of this study have indicated a significant difference in the perceptions of office work by rural high school girls and office employees. It is quite evident that changes must be made in the rural curriculum to close this gap of knowledge for the benefit of those rural students who choose office occupations as their livelihood.

The Vocational Act of 1963 has provided support to states so that the financial burden of the local school districts can be lightened. This same Act was passed because a panel of consultants recommended to the President that changes in education for the world of work were necessary. Whether much of the money appropriated by the Federal government and allotted to the State Governments has found its way into the rural sector was not determined by this study. It is obvious, however, that some of the disadvantaged schools in the rural areas are in need of assistance such as can be obtained through vocational education.

The following recommendations are presented as suggestions for improving the knowledge of office occupations of the rural high school girls:

1. Rural high school girls should be permitted to take field trips to offices in large towns and cities at school expense.

2. Emphasis should be placed upon work experience requirements in office occupations for rural high school teacher certification in business and office education programs.

3. Occupational information related to office work should be made available to rural high school girls.

4. Resource people from city offices should be scheduled to visit rural high school business and office occupations programs frequently throughout the school year.

5. Rural high school curricula should contain special units on office procedures, human relations, and employer-employee relations.

6. Teachers should be cognizant of the various levels of job entry in office occupations.

7. Material supplementary to textbooks should be prepared for the rural high school business and office education teacher that will enable the teacher and students to keep abreast of the changing world of office work.

8. Mobile model-office classrooms should be scheduled for rural high schools to alleviate the pressure of large financial expenditures for machines and office furniture that simulates the modern office.

9. Rural business and office education teachers should be allotted school time for preparation for resource people, field trips, and for keeping an up-to-date occupational library.

Recommended Additional Research

It is obvious from the results of this study that additional research would enhance the knowledge of educators interested in the problems of rural advantaged and disadvantaged high school girls. It possibly could bring about solutions to problems that exist in the rural communities relating to the migration of the rural student to occupations in urban center.

Some suggestions for further research are:

A study of the influences that attract rural high school girls to pursue office occupations.

An experimental study to determine the effectiveness of regularity of resource people in rural high school business and office education programs.

A study of teacher work experience in office occupations and the role the teacher plays in influencing students to pursue office occupations.

An experimental study to determine the effectiveness of mobile model-classroom units upon training rural high school business and office education students.

A follow-up study of rural high school business and office education students to determine the effectiveness of their preparation for urban office work.

An experimental study to determine the effectiveness of simulated office work experience in the classroom.

Studies to determine the attitude toward office occupations of disadvantaged Spanish-American, Indian, and Anglo students.

Studies to determine the attitude toward office occupations of advantaged Spanish-American, Indian, and Anglo students.

A number of other interesting and informative studies could be recommended. Certainly, more research in the rural society will bring answers to problems that are evident in training rural students for office occupations.

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APPENDIX I

BUSINESS EDUCATORS AND RESEARCHERS

BUSINESS EDUCATORS AND RESEARCHERS

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APPENDIX II

PILOT STUDY QUESTIONNAIRE

THE CENTER FOR VOCATIONAL AND TECHNICAL EDUCATION
The Ohio State University, Columbus, Ohio
and
THE DEPARTMENT OF VOCATIONAL EDUCATION
Colorado State University, Fort Collins, Colorado

OFFICE WORK PERSONAL-INSIGHT SCALE

TO THE STUDENT: You do not have to write your name on this sheet. This is a questionnaire designed to determine how you feel toward office work in cities. Selected students from six states in the West are participating in this study. We appreciate your cooperation and hope that you will make every effort to answer all of the questions to the best of your ability.

****

BEFORE ANSWERING THE STATEMENTS, PLEASE COMPLETE THE FOLLOWING BLANKS:

Birthday ______________
Month Day Year

Year in school: 10th grade
11th grade
12th grade

Male___
Female___

Are you interested in doing office work? Yes ___ No___

Have you taken beginning typewriting? Yes ___ No ___

How much? 1 semester ___
2 semesters
(or 1 year)___

Your typing grade: Good ___
Average ___
Poor ___

Are you now taking beginning typewriting? Yes ___ No ___

If yes, how are you doing in typing class? Good ___
Average ___
Poor ___

What is your overall grade average in school? Good ___
Average ___
Poor ___

****

MINORITY GROUPS REFERRED TO IN THE STATEMENTS MEAN NEGRO, INDIAN, OR SPANISH-NAMED PEOPLE.

Please place a check mark (✓) in the column that best fits your answer to the following statements:

	True	Don't Know	False
1. Typewriting is a requirement for getting a job in an office			
2. Office workers do not make as much money as factory workers			
3. It would disturb you to have your office supervisor check your work closely			
4. Office jobs are important			
5. You would not avoid sitting next to someone from a minority group at work			
6. A person can get a job in an office without a high school diploma			
7. Office workers are more socially accepted than workers who get their clothes dirty or greasy			
8. You could not accept criticism from your office supervisor when he is angry			
9. You would stay at home if you had a slight cold but had work to do at the office			
10. You would not take orders from a person from a minority group at work			
11. You must be good looking to get a good office job			
12. If you worked in an office, you could make as much money as your father, mother, or guardian			
13. You would not go to an office party with your supervisor if both of you were single			
14. You would accept someone correcting you if you used "it don't" instead of "it doesn't"			
15. You would not share a ride with a person from a minority group while going to work in a private car			
16. People who work in offices wear expensive clothes			

	True	Don't Know	False
17. Some companies pay for office worker's health and life insurance			
18. You would go to an office party with a delivery boy if both of you were single			
19. If would be all right to wear high heels in an office			
20. You would not take a coffee break with someone from a minority group			
21. Most office jobs today require a shorthand skill of at least 100 words per minute			
22. Office workers are respected more than other workers in the same business or industry			
23. If your office supervisor asked you for a date, you should accept			
24. You would not demand better pay if you had more education than your co-workers			
25. If you accidentally left your money at home, you would ask someone from a minority group to lend you lunch money			
26. Being overweight or extremely underweight does not limit your chances of obtaining an office job			
27. Office workers are usually invited to more parties and social functions than other workers			
28. If you have a personal problem, you would talk it over with your supervisor in an office			
29. You would not work in an office where you were required to join a union			
30. Your religious beliefs are important in determining the kind of office in which you would work			
31. Being tall or short does not limit your chances of obtaining an office job			

	True	Don't Know	False
32. Women office workers usually make the same salary as men office workers			
33. An office worker will invite the boss to eat lunch with her			
34. It would be annoying to others if you had eaten onions and other highly spiced foods before going to the office			
35. A person's color might cause him to be looked down upon by fellow office workers			
36. Most office workers must know how to file			
37. Office workers have a better chance for advancement than other workers			
38. Women do not make good office supervisors			
39. If you are a very efficient office worker, you do not have to get along with your co-workers			
40. A Negro, Indian, or Spanish-named supervisor would treat other office workers fairly			
41. Office workers must know bookkeeping to get a job			
42. Office workers who are not friendly with their supervisors will not get promotions			
43. Office workers work fewer hours than others in business and industry			
44. Office workers usually wear bright colored clothes to make the office more cheerful			
45. One's religion should not be important in determining what is demanded on the job			
46. You cannot expect to get an office job with a large company right after you finish high school			
47. Office workers work in large rooms with many other office workers in large businesses			

	True	Don't Know	False
48. In offices where customers appear daily, it should be the attitude of the office worker that the customer is always right			
49. You would be expected to wear jewelry in the office			
50. Members of some minority groups cannot get and keep a job in an office because of discrimination			
51. The city is not a healthy place to live and do office work			
52. Your parents will disown you if you leave home to get an office job after you finish high school			
53. It is all right to wear your hair below your shoulders in an office			
54. Office workers enjoy working in offices in large cities			
55. Many office workers are likely to be replaced by automation			
56. Office workers are more likely to have steady work than factory workers			
57. You would not sit at the same table with a stranger from a minority group in a cafeteria at lunch			
58. You would use your sick leave to conduct personal business			
59. Job opportunities in office work are decreasing because of automation			
60. Office workers frequently must return to school to learn about new equipment and office procedures			
61. Out-of-style clothes are all right in an office as long as they are clean			
62. Many office workers are asked to work overtime when the work load is heavy			

	True	Don't Know	False
63. Most office workers usually do not have direct contact with customers in the office			
64. You would not accept office employment with a company that hires people from minority groups			
65. If you worked in an office, you would not have to take a bath every day			
66. You would not mind working overtime without pay when the work load is heavy			
67. Most office workers use a lot of make-up, perfume and deodorant			

Comments: If you have any other questions about office workers, please write them in the space below.

APPENDIX III

FINAL DRAFT QUESTIONNAIRE

	True	Don't Know	False
1. Typewriting is a requirement for getting a job in an office			
2. Office workers do not make as much money as factory workers			
3. It would disturb you to have your office supervisor check your work closely			
4. Job opportunities in office work are decreasing because of automation			
5. You would not avoid sitting next to someone from a minority group at work			
6. A person can get a job in an office without a high school diploma			
7. Office workers are more socially accepted than workers who get their clothes dirty or greasy			
8. You could not accept criticism from your office supervisor when he is angry			
9. Most office workers use a lot of make-up, perfume, and deodorant			
10. You would not take orders from a person from a minority group at work			
11. Office workers frequently must return to school to learn about new equipment and office procedures			
12. If you worked in an office, you could make as much money as your father, mother, or guardian			
13. The city is not a healthy place to live and do office work			
14. You would accept someone correcting you if you used "it don't" instead of "it doesn't"			
15. You would not share a ride with a person from a minority group while going to work in a private car			
16. People who work in offices wear expensive clothes			

	True	Don't Know	False
17. Some companies pay for office worker's health and life insurance			
18. Office workers enjoy working in offices in large cities			
19. Out-of-style clothes are all right in an office as long as they are clean			
20. You would not take a coffee break with someone from a minority group			
21. Most office jobs today require a shorthand skill of at least 100 words per minute			
22. Office workers are respected more than other workers in the same business or industry			
23. If your office supervisor asked you for a date, you should accept			
24. You would not demand better pay if you had more education than your co-workers			
25. If you accidentally left your money at home, you would ask someone from a minority group to lend you lunch money			
26. Being overweight or extremely underweight does not limit your chances of obtaining an office job			
27. Office workers are usually invited to more parties and social functions than other workers			
28. If you have a personal problem, you would talk it over with your supervisor in an office			
29. You would not work in an office where you were required to join a union			
30. Your religious beliefs are important in determining the kind of office in which you would work			
31. If you worked in an office, you would not have to take a bath every day			

		True	Don't Know	False
32.	Women office workers usually make the same salary as men office workers			
33.	An office worker will invite the boss to eat lunch with her			
34.	It would be annoying to others if you had eaten onions and other highly spiced foods before going to the office			
35.	A person's color might cause him to be looked down upon by fellow office workers			
36.	Most office workers must know how to file			
37.	Office workers have a better chance for advancement than other workers			
38.	Women do not make good office supervisors			
39.	It is just as important for an office worker to get along with others as it is to be efficient			
40.	A Negro, Indian, or Spanish-named supervisor would treat other office workers fairly			
41.	Office workers must know bookkeeping to get a job			
42.	Office workers work fewer hours than others in business and industry			
43.	Office workers who are not friendly with their supervisors will not get promotions			
44.	Office workers usually wear bright colored clothes to make the office more cheerful			
45.	One's religion should not be important in determining what is demanded on the job			
46.	You cannot expect to get an office job with a large company right after you finish high school			
47.	Office workers are more likely to have steady work than factory workers			

	True	Don't Know	False
48. In offices where customers appear daily, it should be the attitude of the office workers that the customer is always right			
49. You would be expected to wear jewelry in the office			
50. Members of some minority groups cannot get and keep a job in an office			

Comments: If you have any other questions about office workers, please write them in the space below.

APPENDIX IV

QUESTIONNAIRE COVER SHEETS

SA I N A

THE CENTER FOR VOCATIONAL AND TECHNICAL EDUCATION
The Ohio State University, Columbus, Ohio
and
THE DEPARTMENT OF VOCATIONAL EDUCATION
Colorado State University, Fort Collins, Colorado

OFFICE WORK PERSONAL-INSIGHT SCALE

TO THE STUDENT:

You do not have to write your name on this sheet. This is a questionnaire designed to determine how you feel toward office work in cities. Selected students from six states in the West are participating in this study. We appreciate your cooperation and hope that you will make every effort to answer all of the questions to the best of your ability.

****

BEFORE ANSWERING THE STATEMENTS, PLEASE COMPLETE THE FOLLOWING BLANKS:

Birthday ______________
Month Day Year

Year in School: 10th grade
11th grade
12th grade

Male ___
Female ___

Are you interested in doing office work? Yes ___ No ___

Have you taken beginning typewriting? Yes ___ No ___

How much? 1 semester ___
2 semesters (or 1 year) ___

Your typing grade: Good ___
Average ___
Poor ___

Are you now taking beginning typewriting? Yes ___ No ___

If yes, how are you doing in typing class? Good ___
Average ___
Poor ___

What is your overall grade average in school? Good ___
Average ___
Poor ___

****

MINORITY GROUPS REFERRED TO IN THE STATEMENTS MEAN NEGRO, INDIAN, OR SPANISH-NAMED PEOPLE.

Please place a check mark (✓) in the column that best fits your answer to the following statements:

SN I N A

THE CENTER FOR VOCATIONAL AND TECHNICAL EDUCATION
The Ohio State University, Columbus, Ohio
and
THE DEPARTMENT OF VOCATIONAL EDUCATION
Colorado State University, Fort Collins, Colorado

OFFICE WORK PERSONAL-INSIGHT SCALE

TO THE EMPLOYEE:

You do not have to write your name on this sheet. This is a questionnaire designed to determine how you feel toward office work in cities. This same questionnaire has been administered to selected high school students in a six-state region of the West in schools similar to the one you attended. It is an effort to compare high school students thinking about office work with the thinking of those who are presently employed in offices. Our efforts are designed to develop curriculum that will be more meaningful to the rural high school student in relation to office work. Your cooperation in filling out this questionnaire is greatly appreciated.

PLEASE FILL OUT THE FOLLOWING BLANKS BEFORE BEGINNING ON THE QUESTIONNAIRE:

Birthday ______________ Year of graduation from high school ____
Month Day Year

High School atended ______________________________. Did you have training in secretarial work in a post-high school before doing office work? Yes ___ No ___
If yes, how much? ______________________________________.

How many years of office experience have you had since high school graduation? ____

How many different offices have you worked in since high school graduation? ____

Have you been promoted since working for your present employer? Yes ___ No ___

If you changed jobs, did you change because of an advancement in salary or position? Yes ___ No ___

Check business courses taken in high school: Indicate in blank how much.

Typewriting ________ Shorthand ________ Bookkeeping ______ Filing ______

MINORITY GROUPS REFERRED TO IN THE STATEMENTS MEAN NEGRO, INDIAN, OR SPANISH-NAMED PEOPLE.
Please place a check mark (✓) in the column that best fits your answer to the following statements:

APPENDIX V

PARTICIPATING SCHOOLS

The following list contains the schools and addresses from which the data for this study were gathered:

Schools	Address
Arizona:	
Ash Fork High School	Ash Fork, Arizona
Bowie High School	Bowie, Arizona
Fort Thomas High School	Fort Thomas, Arizona
Monument High School	Kayenta, Arizona
Pinetop-Lakeside High School	Lakeside, Arizona
McNary High School	McNary, Arizona
Pima High School	Pima, Arizona
San Simon High School	San Simon, Arizona
Seligman High School	Seligman, Arizona
Snowflake High School	Snowflake, Arizona
Colorado:	
Aguilar High School	Aguilar, Colorado
Antonito High School	Antonito, Colorado
Cedaredge High School	Cedaredge, Colorado
Central High School	Grand Junction, Colorado
Hotchkiss High School	Hotchkiss, Colorado
Ignacio High School	Ignacio, Colorado
Centauri High School	LaJara, Colorado
Ouray High School	Ouray, Colorado
San Luis High School	San Luis, Colorado
Idaho:	
Filer High School	Filer, Idaho
Glenns Ferry High School	Glenns Ferry, Idaho
Homedale High School	Homedale, Idaho
Kuna High School	Kuna, Idaho
Meridian High School	Meridian, Idaho
Middleton High School	Middleton, Idaho
Notus High School	Notus, Idaho
Wilder High School	Wilder, Idaho

Nevada:

Pahranagat Valley High School	Alamo, Nevada
Austin High School	Austin, Nevada
Battle Mountain High School	Battle Mountain, Nevada
Carlin High School	Carlin, Nevada
Eurerka County High School	Euerka, Nevada
Gabbs High School	Gabbs, Nevada
Pershing County High School	Lovelock, Nevada
Virgin Valley High School	Mesquite, Nevada
Lincoln County High School	Panaca, Nevada
Moapa Valley High School	Querton, Nevada
Wells High School	Wells, Nevada

New Mexico:

Cimarron High School	Cimarron, New Mexico
Cuba High School	Cuba, New Mexico
Dora High School	Dora, New Mexico
Floyd High School	Floyd, New Mexico
Melrose High School	Melrose, New Mexico
Mosquero High School	Mosquero, New Mexico
Ojo Caliente High School	Ojo Caliente, New Mexico
Questa High School	Questa, New Mexico
Roy High School	Roy, New Mexico
Shiprock High School	Shiprock, New Mexico
Tatum High School	Tatum, New Mexico
Wagon Mound High School	Wagon Mound, New Mexico

Utah:

Beaver High School	Beaver, Utah
Hurricane High School	Hurricane, Utah
Kanab High School	Kanab, Utah
North Rich High School	Laketown, Utah
Parowan High School	Parowan, Utah
Bear River High School	Tremonton, Utah

APPENDIX VI

INSTRUCTIONS FOR ADMINISTERING QUESTIONNAIRE

ADMINISTRATION OF QUESTIONNAIRE BY CLASSROOM TEACHER

1. Administer the questionnaire to 11th grade girls who have had typewriting in the 10th grade.

2. Have students fill out the attendance record. Tear it off of the questionnaire and keep it separate, but return it in the same envelope as the questionnaire envelope. No names are to be written on the questionnaire for identifying individual students.

3. Be sure that all of the cover sheets are filled out completely. It is suggested that when the questionnaire is administered to groups that the teacher go over each blank on the cover sheet with the class to be certain that nothing is omitted.

4. Please do not attempt to clarify any statements on the questionnaire for the students. They must interpret the statements for themselves.

5. There is no time limit for the students for marking the statements on the questionnaire.

6. At the top right hand corner of the cover sheet is a code -- SN I N A --. Please circle the initials that indicate the student's cultural background. SN is Spanish named, I is Indian, N is Negro and A is Anglo. This should be done by the teacher as the students turn their questionnaires in to the teacher.

7. Place questionnaires and attendance records in the stamped manila envelope and return to Colorado State University as soon as possible.

8. If you think that you will be able to contact any ex-students who have not been out of high school for more than three years and who are employed in office work, please mail the student the questionnaire with a stamped envelope so that she can mail it directly to Colorado State University. Make sure that your name and address is on the back of each questionnaire that you mail to ex-students so that we can pay you $3 for each one returned to us by your ex-students.

9. Please fill out the statement indicating that you have received $10 for cooperating in the study. It is realized that this procedure is somewhat reversed; however, payment cannot be made in advance of receiving the questionnaires at Colorado State University.

10. Thank you very much for your cooperation.

APPENDIX VII

PERCENTAGE OF RESPONSE TABLES

APPENDIX TABLE 1. PERCENTAGE OF TOTAL RESPONSES OF OFFICE WORKERS, ADVANTAGED AND DISADVANTAGED STUDENTS

Item No.	Item	Office Workers N=326			Students					
					Advantaged N=498			Disadvantaged N=477		
		True	Don't Know	False	True	Don't Know	False	True	Don't Know	False
1.	Typewriting is a requirement for getting a job in an office.	83	01	16	91	04	04	92	03	04
2.	Office workers do not make as much money as factory workers.	20	31	48	05	31	62	04	40	55
3.	It would disturb you to have your office supervisor check your work closely.	13	04	81	21	15	62	20	14	65
4.	Job opportunities in office work are decreasing because of automation.	30	17	53	39	29	31	36	37	26
5.	You would not avoid sitting next to someone from a minority group at work.	81	05	13	76	11	11	75	08	15
6.	A person can get a job in an office without a high school diploma.	26	16	57	13	21	65	10	20	69
7.	Office workers are more socially accepted than workers who get their clothes dirty or greasy.	40	16	44	34	18	47	35	21	42
8.	You could not accept criticism from your office supervisor when he is angry.	17	15	68	11	19	70	12	21	67
9.	Most office workers use a lot of make-up, perfume, and deodorant.	18	13	68	17	37	45	18	40	41
10.	You would not take orders from a person from a minority group at work.	06	08	86	08	18	72	12	16	71
11.	Office workers frequently must return to school to learn about new equipment and office procedures.	57	18	23	59	27	12	55	32	12

Failure of office workers and students to respond to certain items on the questionnaire result in percentages of less than 100.

APPENDIX TABLE 1.--Continued

		Office Workers			Students					
		N=326			Advantaged N=498			Disadvantaged N=477		
Item No.	Item	True	Don't Know	False	True	Don't Know	False	True	Don't Know	False
12.	If you worked in an office, you could make as much money as your father, mother, or guardian.	45	18	34	47	38	14	48	35	16
13.	The city is not a healthy place to live and do office work.	07	11	81	10	17	71	07	19	73
14.	You would accept someone correcting you if you used "it don't" instead of "it doesn't."	83	06	11	84	05	09	83	06	10
15.	You would not share a ride with a person from a minority group while going to work in a private car.	08	08	84	06	19	73	10	13	76
16.	People who work in offices wear expensive clothes.	10	11	79	10	28	60	08	31	61
17.	Some companies pay for office worker's health and life insurance.	79	16	04	52	44	03	49	47	03
18.	Office workers enjoy working in offices in large cities.	47	44	08	42	53	04	41	53	06
19.	Out-of-style clothes are all right in an office as long as they are clean.	63	13	23	51	28	20	61	23	15
20.	You would not take a coffee break with someone from a minority group.	03	05	91	06	13	80	06	15	78

Failure of office workers and students to respond to certain items on the questionnaire result in percentages of less than 100.

APPENDIX TABLE 1.--Continued

Item No.	Item	Office Workers N=326			Students					
					Advantaged N=498			Disadvantaged N=477		
		True	Don't Know	False	True	Don't Know	False	True	Don't Know	False
21.	Most office jobs today require a shorthand skill of at least 100 words per minute.	20	18	61	34	52	13	30	58	11
22.	Office workers are respected more than other workers in the same business or industry.	19	27	54	14	38	47	15	36	47
23.	If your office supervisor asked you for a date, you should accept.	09	22	68	13	55	30	14	51	34
24.	You would not demand better pay if you had more education than your co-workers.	23	24	51	32	33	34	28	29	41
25.	If you accidentally left your money at home, you would ask someone from a minority group to lend you lunch money.	52	28	18	42	34	22	44	33	22
26.	Being overweight or extremely underweight does not limit your chances of obtaining an office job.	46	17	36	55	19	25	56	17	26
27.	Office workers are usually invited to more parties and social functions than other workers.	22	30	47	28	46	25	23	46	31
28.	If you have a personal problem, you would talk it over with your supervisor in an office.	22	14	63	11	26	61	18	24	57
29.	You would not work in an office where you were required to join a union.	21	33	45	20	46	32	17	51	31

Failure of office workers and students to respond to certain items on the questionnaire result in percentages of less than 100.

APPENDIX TABLE 1.--Continued

Item No.	Item	Office Workers N=326 True	Office Workers N=326 Don't Know	Office Workers N=326 False	Students Advantaged N=498 True	Students Advantaged N=498 Don't Know	Students Advantaged N=498 False	Students Disadvantaged N=477 True	Students Disadvantaged N=477 Don't Know	Students Disadvantaged N=477 False
30.	Your religious beliefs are important in determining the kind of office in which you would work.	24	07	67	33	13	52	30	13	55
31.	If you worked in an office, you would not have to take a bath every day.	09	05	85	09	05	85	07	07	85
32.	Women office workers usually make the same salary as men office workers.	15	23	60	27	52	19	40	45	14
33.	An office worker will invite the boss to eat lunch with her.	17	18	64	08	39	51	10	36	52
34.	It would be annoying to others if you had eaten onions and other highly spiced foods before going to the office.	84	07	07	91	06	02	90	06	04
35.	A person's color might cause him to be looked down upon by fellow office workers.	47	14	38	46	20	32	45	17	37
36.	Most office workers must know how to file.	82	07	11	92	05	02	90	07	01
37.	Office workers have a better chance for advancement than other workers.	26	29	44	24	46	29	28	41	29
38.	Women do not make good office supervisors.	15	20	65	03	29	66	03	28	68
39.	It is just as important for an office worker to get along with others as it is to be efficient.	94	03	03	95	02	01	96	02	01
40.	A Negro, Indian, or Spanish-named supervisor would treat other office workers fairly.	68	25	06	65	32	01	74	21	04
41.	Office workers must know bookkeeping to get a job.	19	12	68	41	31	19	44	32	18

Failure of office workers and students to respond to certain items on the questionnaire result in percentages of less than 100.

APPENDIX TABLE 1.--Concluded

Item No.	Item	Office Workers N=326 True	Office Workers N=326 Don't Know	Office Workers N=326 False	Students Advantaged N=498 True	Students Advantaged N=498 Don't Know	Students Advantaged N=498 False	Students Disadvantaged N=477 True	Students Disadvantaged N=477 Don't Know	Students Disadvantaged N=477 False
42.	Office workers work fewer hours than others in business and industry.	21	13	65	13	42	42	17	44	38
43.	Office workers who are not friendly with their supervisors will not get promotions.	29	23	47	23	40	36	23	38	37
44.	Office workers usually wear bright colored clothes to make the office more cheerful.	11	20	69	16	43	39	15	37	47
45.	One's religion should not be important in determining what is demanded on the job.	64	10	26	46	13	39	54	15	30
46.	You cannot expect to get an office job with a large company right after you finish high school.	29	11	59	49	25	24	51	23	25
47.	Office workers are more likely to have steady work than factory workers.	62	20	18	57	27	14	60	28	10
48.	In offices where customers appear daily, it should be the attitude of the office workers that the customer is always right.	66	09	24	49	21	28	40	27	31
49.	You would be expected to wear jewelry in the office.	11	10	78	07	31	60	10	27	62
50.	Members of some minority groups cannot get and keep a job in an office.	33	22	44	29	35	33	27	32	39

Failure of office workers and students to respond to certain items on the questionnaire result in percentages of less than 100.

APPENDIX VIII

KEY TO WEIGHTING OF QUESTIONNAIRE

		True	Don't Know	False
1.	Typewriting is a requirement for getting a job in an office	3	1	2
2.	Office workers do not make as much money as factory workers	2	1	3
3.	It would disturb you to have your office supervisor check your work closely	2	1	3
4.	Job opportunities in office work are decreasing because of automation	2	1	3
5.	You would not avoid sitting next to someone from a minority group at work	3	1	2
6.	A person can get a job in an office without a high school diploma	2	1	3
7.	Office workers are more socially accepted than workers who get their clothes dirty or greasy	2	1	3
8.	You could not accept criticism from your office supervisor when he is angry	2	1	3
9.	Most office workers use a lot of make-up, perfume, and deodorant	2	1	3
10.	You would not take orders from a person from a minority group at work	1	2	3
11.	Office workers frequently must return to school to learn about new equipment and office procedures	3	1	2
12.	If you worked in an office, you could make as much money as your father, mother, or guardian	3	1	2
13.	The city is not a healthy place to live and do office work	2	1	3
14.	You would accept someone correcting you if you used "it don't" instead of "it doesn't"	3	1	2
15.	You would not share a ride with a person from a minority group while going to work in a private car	2	1	3

		True	Don't Know	False
16.	People who work in offices wear expensive clothes	2	1	3
17.	Some companies pay for office worker's health and life insurance	3	1	2
18.	Office workers enjoy working in offices in large cities	3	2	1
19.	Out-of-style clothes are all right in an office as long as they are clean	3	1	2
20.	You would not take a coffee break with someone from a minority group	2	1	3
21.	Most office jobs today require a shorthand skill of at least 100 words per minute	2	1	3
22.	Office workers are respected more than other workers in the same business or industry	2	1	3
23.	If your office supervisor asked you for a date, you should accept	2	1	3
24.	You would not demand better pay if you had more education than your co-workers	2	1	3
25.	If you accidentally left your money at home, you would ask someone from a minority group to lend you lunch money	3	1	2
26.	Being overweight or extremely underweight does not limit your chances of obtaining an office job	3	1	2
27.	Office workers are usually invited to more parties and social functions than other workers	2	1	3
28.	If you have a personal problem, you would talk it over with your supervisor in an office	2	1	3
29.	You would not work in an office where you were required to join a union	1	2	3
30.	Your religious beliefs are important in determining the kind of office in which you would work	2	1	3

		True	Don't Know	False
31.	If you worked in an office, you would not have to take a bath every day	2	1	3
32.	Women office workers usually make the same salary as men office workers	2	1	3
33.	An office worker will invite the boss to eat lunch with her	2	1	3
34.	It would be annoying to others if you had eaten onions and other highly spiced foods before going to the office	3	1	2
35.	A person's color might cause him to looked down upon by fellow office workers	3	1	2
36.	Most office workers must know how to file	3	1	2
37.	Office workers have a better chance for advancement than other workers	2	1	3
38.	Women do not make good office supervisors	2	1	3
39.	It is just as important for an office worker to get along with others as it is to be efficient	3	1	2
40.	A Negro, Indian, or Spanish-named supervisor would treat other office workers fairly	3	1	2
41.	Office workers must know bookkeeping to get a job	2	1	3
42.	Office workers work fewer hours than others in business and industry	2	1	3
43.	Office workers who are not friendly with their supervisors will not get promotions	2	1	3
44.	Office workers usually wear bright colored clothes to make the office more cheerful	2	1	3
45.	One's religion should not be important in determining what is demanded on the job	3	1	2
46.	You cannot expect to get an office job with a large company right after you finish high school	2	1	3

	True	Don't Know	False
47. Office workers are more likely to have steady work than factory workers	3	1	2
48. In offices where customers appear daily, it should be the attitude of the office workers that the customer is always right	3	1	2
49. You would be expected to wear jewelry in the office	2	1	3
50. Members of some minority groups cannot get and keep a job in an office	2	1	3

Comments: If you have any other questions about office workers, please write them in the space below.

APPENDIX IX

STATISTICAL FORMULAS

The chi-square formula used in the treatment of the data in this study was:

$$\chi^2 = \Sigma \frac{(\text{Actual Frequency} - \text{Expected Frequency})^2}{\text{Expected Frequency}}$$

The one-way analysis of variance formula used in the treatment of the data in this study was:

$$\text{variance} = S^2 = \frac{\sum_{i=1}^{N} X_i^2 - \frac{(\sum_{i=1}^{N} X_i)^2}{N}}{N - 1}$$